

# Victor



**11**  
AEROGUIDE

Handley Page Victor K Mk 2



# Victor

## **AEROGUIDE 11: HANDLEY PAGE VICTOR K Mk 2**

Published by Linewrights Ltd, 118 High Street, Chipping Ongar, Essex CM5 9EB, England

© 1985 Linewrights Ltd

The contents of this book are strictly copyright and may not be reproduced or transmitted in any form without the prior written consent of Linewrights Ltd

ISBN 0 946958 11 4

Written and designed by Roger Chesneau  
Colour profile by Steve Archibald  
Scale colour plans by Richard L Ward  
Photo processing by Frank Collins

Typesetting by Typesetters (Birmingham) Ltd, Smethwick, West Midlands  
Colour plates by Chelmer Litho Reproductions, Maldon, Essex  
Printing and binding by Heffers Printers Ltd, Cambridge

Distributed in Japan by Hasegawa Seisakusho Co Ltd,  
1193-2 Yagusu, Yaizu, Shizuoka 425  
Distributed in Australia by Princeton Books Pty Ltd,  
Cnr Mills and Herald Streets, Cheltenham, Victoria 3192  
Distributed in New Zealand by Princeton Books (NZ) Ltd,  
Unit 1, 8 Ashfield Street, Glenfield, Auckland

This edition is not to be sold in the United States or Canada

Printed in Great Britain

### **ACKNOWLEDGEMENTS**

The photographs appearing in this book were, except where individually credited, specially taken at RAF Marham, by kind permission of the Officer Commanding, Gp Capt R P O'Brien, and with facilities generously arranged by Chris Shepherd (Strike Command HQ) and Sqn Ldr D R Williams (CRO Marham). For assistance with background information and archive photographs, the publishers extend their thanks to the Handley Page Association (in particular to the Association's chairman, Harry Fraser-Mitchell); to Harry Holmes of British Aerospace, Woodford; to Del Holyland of the Martin-Baker Aircraft Company; and to Arthur Bentley. Chf Techs Steve Millard and Colin Channon, of No 57 Squadron, deserve a special word of thanks for giving freely of their technical expertise and for patiently explaining, through sunshine and rain (more often the latter!), the Victor's finer points, whilst grateful acknowledgement is also made of the photographic work of Ray Rimell.

### **Cover illustration**

Handley Page Victor K Mk 2 XL192, No 57 Squadron, on standby at RAF Marham, February 1985.

### **Back cover plate**

Handley Page Victor K.2 XL188, wearing the markings of No 55 Squadron, RAF Marham, November 1984.

**Price £3.50 net UK only**

***Linewrights*** LTD



# INTRODUCTION

The year 1985 marked the centenary of the birth of one of the most celebrated names in the history of aviation. Sir Frederick Handley Page founded and led a company which was responsible for such outstanding aircraft as the O/400 bomber of World War I, the inter-war HP.42 civil airliner and the Halifax heavy bomber which, with the Avro Lancaster, spearheaded the RAF offensive over Germany during World War II. Since its inception on 1 April 1918, the Royal Air Force has always been able to count at least one Handley Page design on its inventory.

The Handley Page Aircraft Company was liquidated in early 1970 following the government-inspired reorganisation of the British aircraft industry, but at the time of writing, over fifteen years later, two of its aircraft continue to serve with the RAF. One is the twin-turboprop Jetstream trainer, production of which was transferred to the Scottish Aviation (now part of British Aerospace) facility at Prestwick and, indeed, continues today; the other is the Victor.

## 'THE FLYING SCIMITAR'

The Victor was originally produced in response to Air Staff Operational Requirement (ASOR) 230, which developed into Specification B.35/46 (the same requirement that led to the introduction of the Avro Vulcan – see AEROGUIDE 6), calling for a high-speed, high-altitude bomber with a still-air range of 3500nm and capable of carrying a 10,000lb offensive load. Designated HP.80, the aircraft caused a sensation when the first photographs appeared in the national newspapers on 28 December 1952. Its slim, tapered fuselage and high-set

'vee' tail were futuristic enough compared with the propeller-driven Lincolns and Washingtons that at the time made up RAF Bomber Command's main striking force, but the feature which brought about the most excitement was the wing shape. The 'crescent' planform was undoubtedly radical: the wing leading edge was highly swept at the deep inboard section, in order to present minimum drag and delay buffeting at high subsonic speeds, and featured very much less sweep (and the required thinning to keep the critical Mach number constant) out at the wing tips, in order to prevent tip stall and problems of aileron effectiveness; an intermediate wing section was incorporated so as not to make the changes in thickness and leading-edge sweep-back too abrupt. It was not very long before the Victor was dubbed 'The Flying Scimitar'.

Powered by four 8000lb Armstrong Siddeley Sapphire 6 Mk 100 turbojets, the prototype Victor had first flown on Christmas Eve 1952, an elaborate deception having been organised some months earlier for transporting the aircraft by road from the workshops at Cricklewood, North London, to Boscombe Down which involved towing a gigantic box-like structure shrouded in sheets bearing the anagram 'Geleypandhy' (*sic*). WB771 crashed during a test flight in the summer of 1954, but by then the second prototype, WB775, was nearing completion. Production orders for the Victor had been placed as early as June 1952, and although originally in competition with the Vulcan the Handley Page product was also introduced into service, along with the third of the 'V-bombers', the Vickers

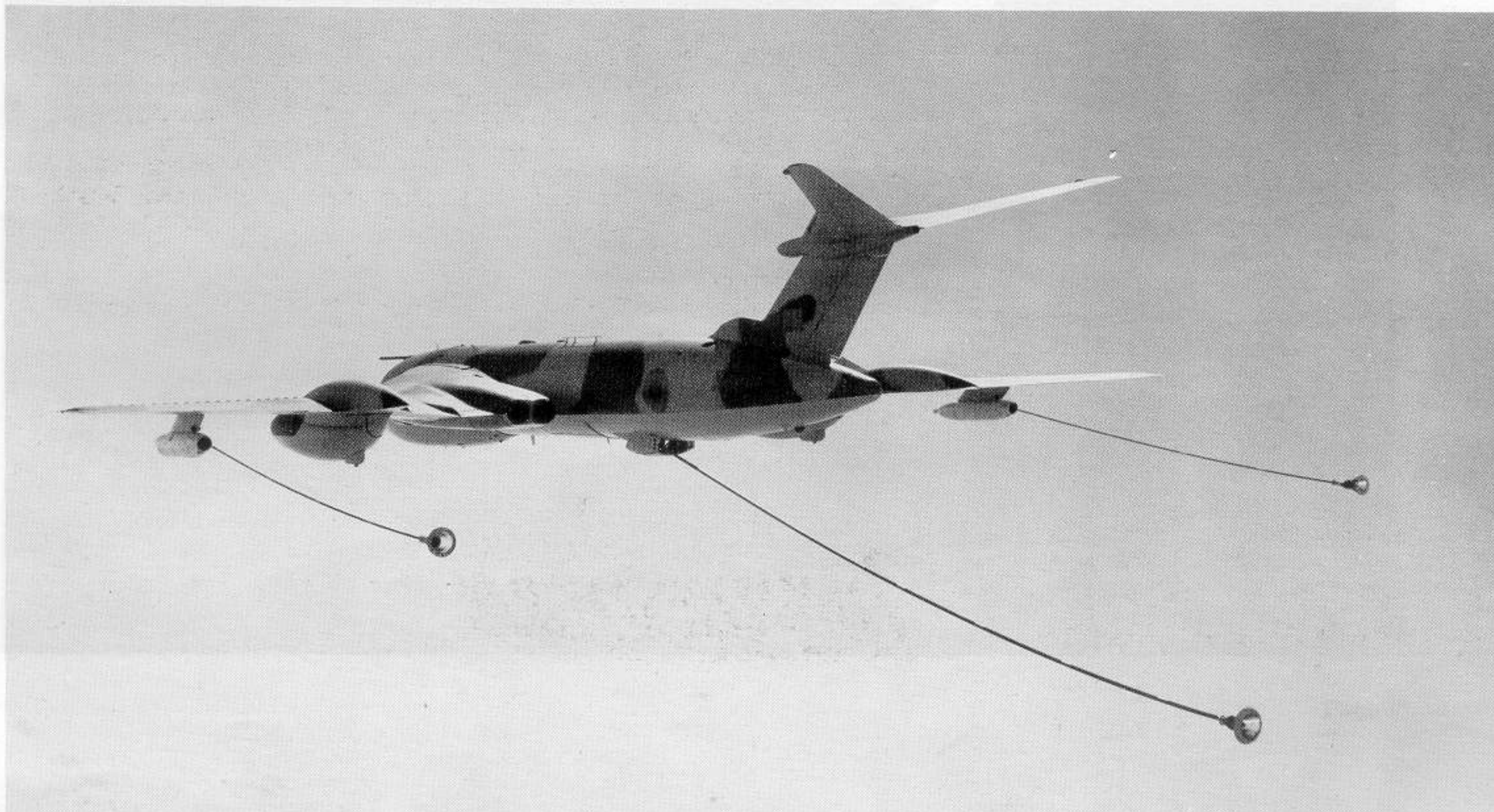
Valiant. Victors first joined Bomber Command with No 232 Operational Conversion Unit at RAF Gaydon in November 1957 as the last element of the British nuclear deterrent.

## MORE POWER – AND BLUE STEEL

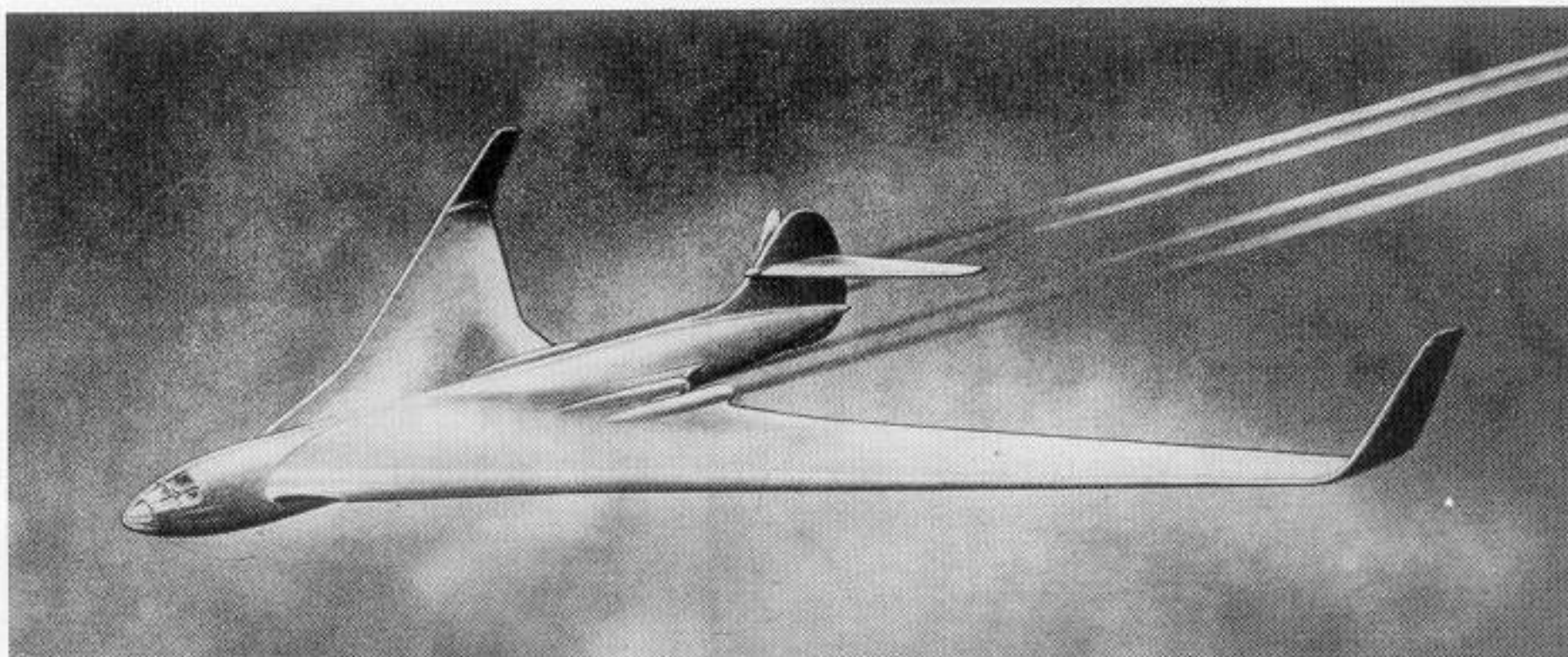
Production Victors, designated B Mk 1, received more powerful, 11,000lb thrust Sapphire 200-Series engines, and even before delivery to the RAF the aircraft were demonstrating their capabilities. The fifth example, XA921, unloaded thirty-five 1000lb bombs in a single drop during trials in 1956 (the Victor had room for forty-eight, but such numbers were never carried in service); and the following year the first B.1, XA917, broke the sound barrier. The first Victor bomber squadron to form was No 10 at Cottesmore, Rutland, in April 1958, and this unit was joined by No XV Squadron later that year; in January 1959 No 57 Squadron at Honington received its first Victors.

With the B.1 in full production, thoughts turned to improving the design, and in February 1959, with a broadened wing root and extended wing tips, and powered by Rolls-Royce Conways each developing 17,250lb of thrust, the Victor B Mk 2 first took to the air. Service introduction followed within three years at RAF Wittering, when No 139 and

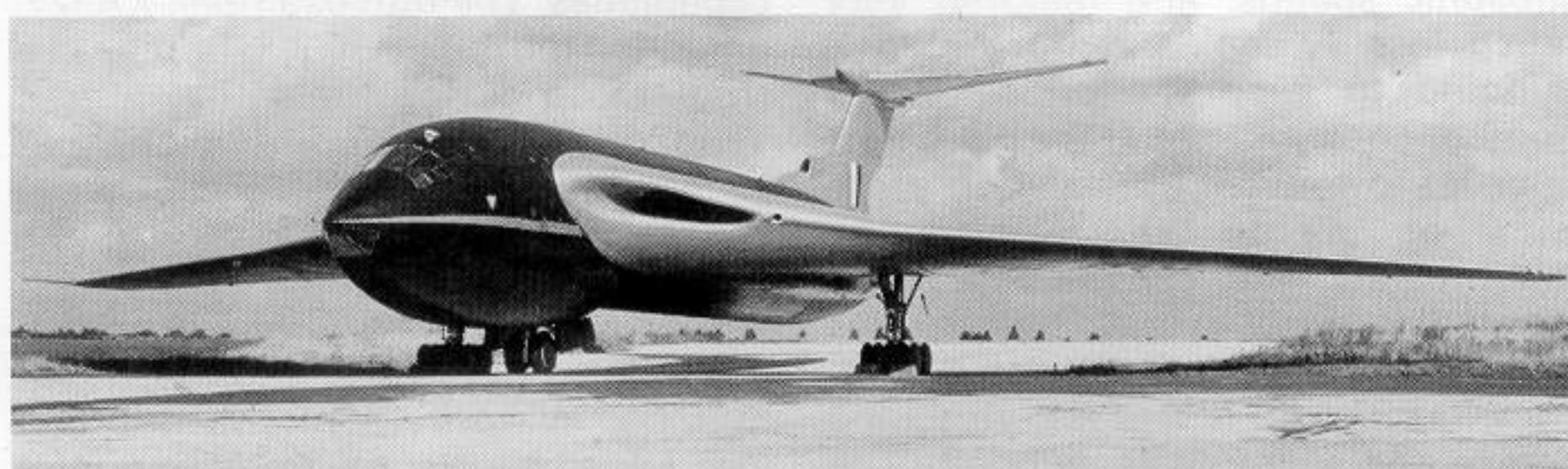
Below: Each of the three British 'V-bombers' has seen out its service with the RAF as an airborne tanker, and the mainstay of the tanker fleet for the past twenty years has been the Handley Page Victor. The early K Mk 1 variants were replaced from 1975 by the much more powerful K.2s, an example of which is illustrated. *British Aerospace*







**Left above:** The original design for the Handley Page HP.80 – later to evolve as the Victor – dated from early 1946 and was formulated by the company's Research Engineer, Godfrey Lee. It featured a swept wing terminating in twin rudders, four Avon engines and no tailplane; in order to meet the requirements of Specification B.35/46 some modifications were called for, most obviously a change in wing planform to 'crescent' configuration and the addition of a stub tailfin mounting horizontal stabilisers. This artist's impression shows the dramatic lines of the HP.80. *Handley Page Association*



**Left below:** The second prototype Victor, WB775. The handsome paint scheme is black and silver-grey, with red fuselage trim. *Handley Page Association*

**Bottom:** A Victor B Mk 1 fitted with underwing tanks and refuelling probe. *Handley Page Association*

subsequently No 100 Squadrons equipped with the type. In the interim, many Victor B.1s, in common with early Vulcans, had been modified to B.1A standard by having ECM equipment installed in their tailcones and their wing 'nose flaps' replaced by fixed droops. B.1As were supplied to Nos XV and 57 Squadrons in 1960 and to a new Victor unit, No 55 Squadron at Honington, the same year.

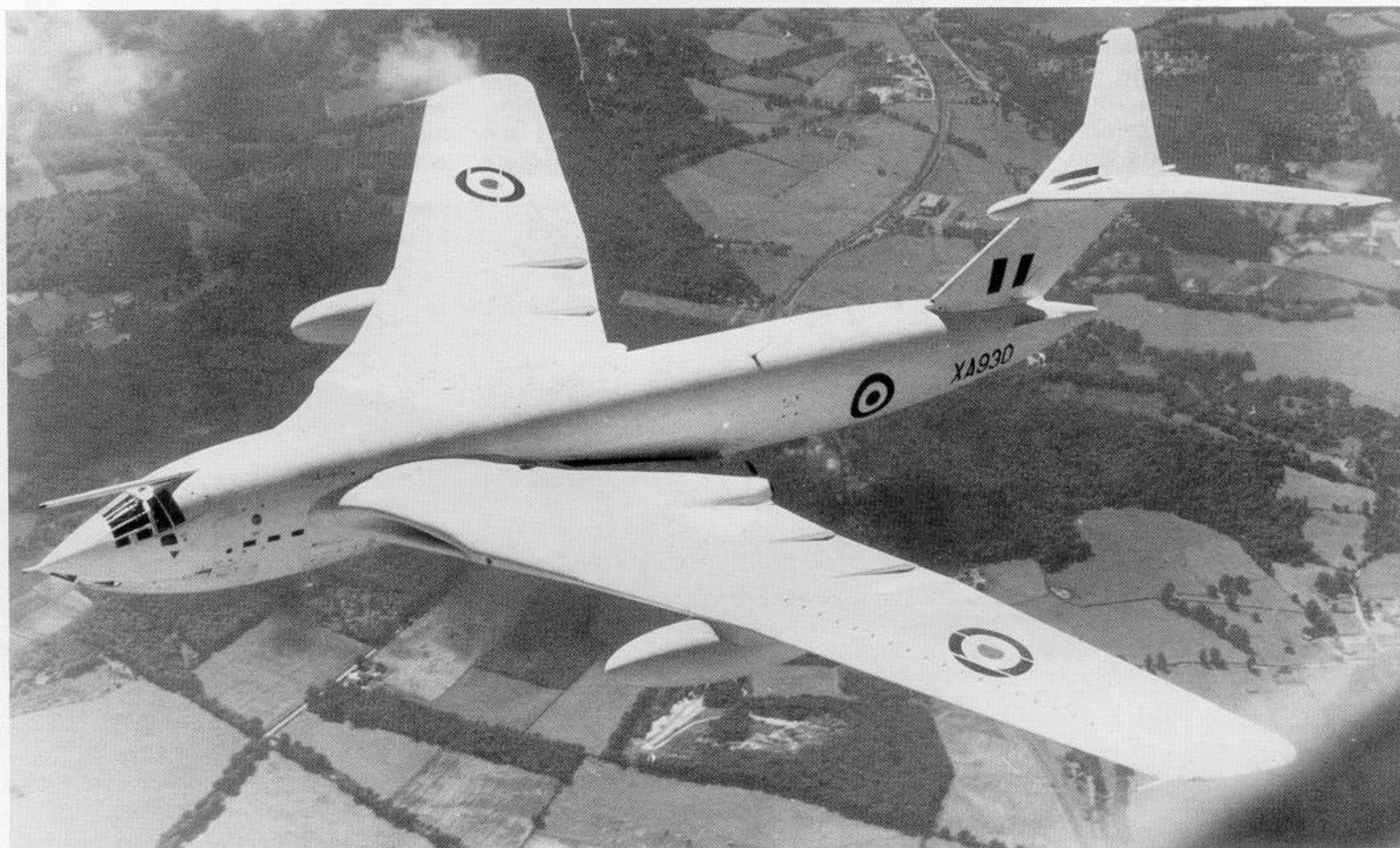
As with the Vulcan, the Victor was in due course modified to carry the Blue Steel nuclear stand-off missile, 23 of the 32 production B.2s being con-

verted for the role. The weapon required changes to the bomb bay and bomb doors – it was carried semi-recessed – and underwing fuel tanks were fitted to the aircraft to extend their range. The remaining Victor B.2s were modified as SR.2s for strategic reconnaissance, employed with No 543 Squadron at Wyton and equipped with a battery of cameras and photo-flashes and with additional fuel in their bomb bays.

#### A NEW LEASE OF LIFE

By this time the older B.1s were being

given a new lease of life as B(K) Mk 1/1A airborne tankers, the first aircraft featuring two wing-mounted refuelling pods and retaining an attack capability. By early 1966 fully modified K.1/1As were arriving at RAF Marham for service with Nos 55 and 57 Squadrons, their bomb bays now equipped with a retractable Hose Drum Unit (HDU) to give the tankers a three-point drogue arrangement. No 214 Squadron was also equipped with Victor tankers at Marham, and the Tanker Training Flight, later redesignated No 232 OCU, was set up to provide the





necessary familiarisation courses.

With the phasing out of Blue Steel and the transfer of responsibility for the deterrent to the Royal Navy's Polaris submarines in 1969, the Blue Steel Victor B.2s were returned to the Handley Page facility at Radlett, Hertfordshire, pending their proposed conversion as replacement tankers for the K.1 squadrons. The work was, after some delay, duly undertaken, though ironically at the Avro (Hawker Siddeley) plant at Woodford, Cheshire, owing to the demise of the Handley Page company.

The original HP proposals for the new tanker were not observed in their entirety by the Victors' new custodians; in particular, the plans to fit wing-tip fuel tanks and to revise the cockpit layout were rejected. Instead, work was concentrated on structural strengthening, plus the installation of

the HDU and underwing pods more or less along the lines of the K.1 tanker; in addition, the wing tips were cropped and the ailerons 'uprigged'. A considerable amount of rebuilding was required, not least because of the 1962-64 changeover to low-level operations, which had required the Blue Steel Victor B.2s to withstand very much more structural stress than hitherto.

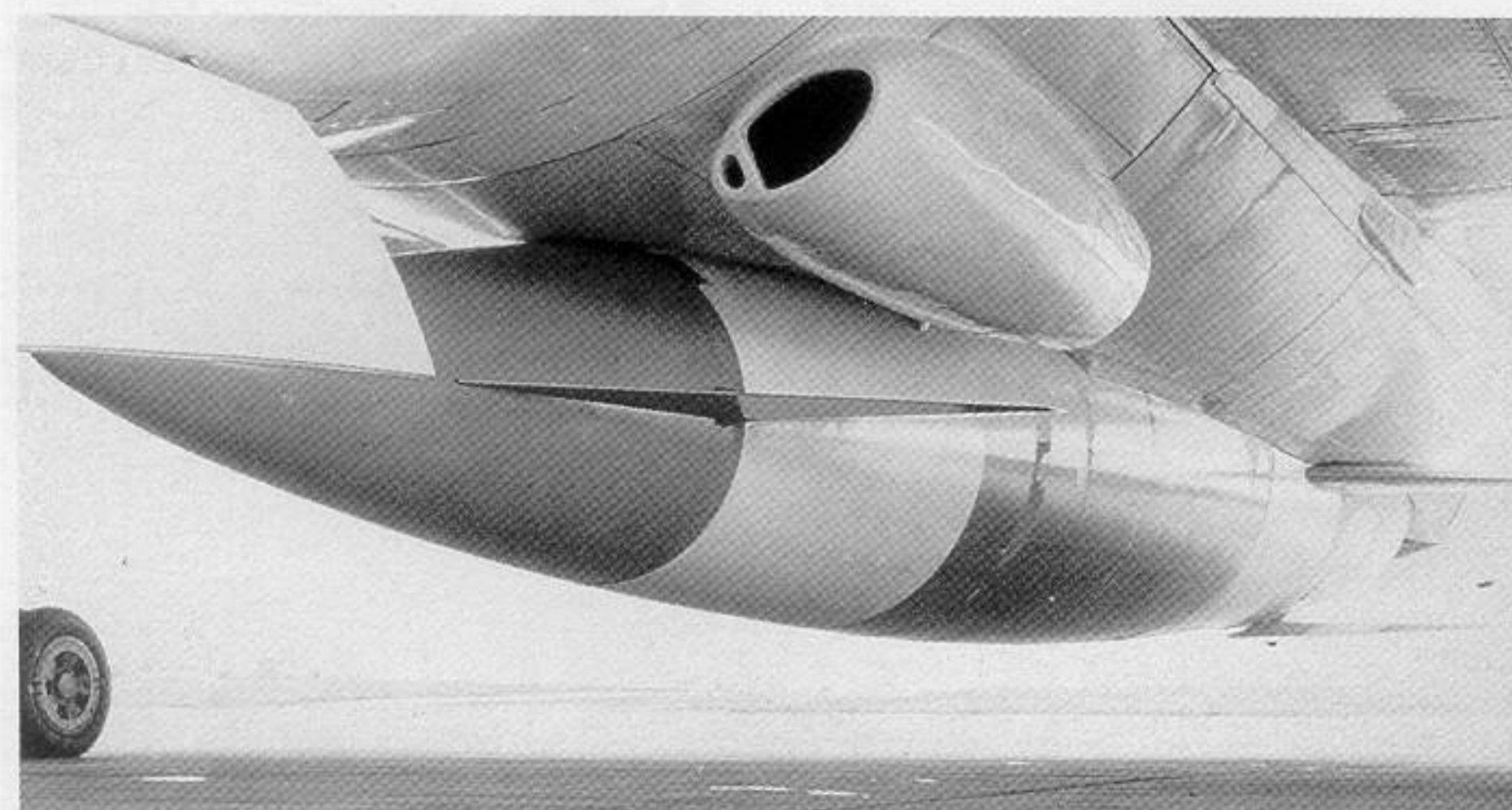
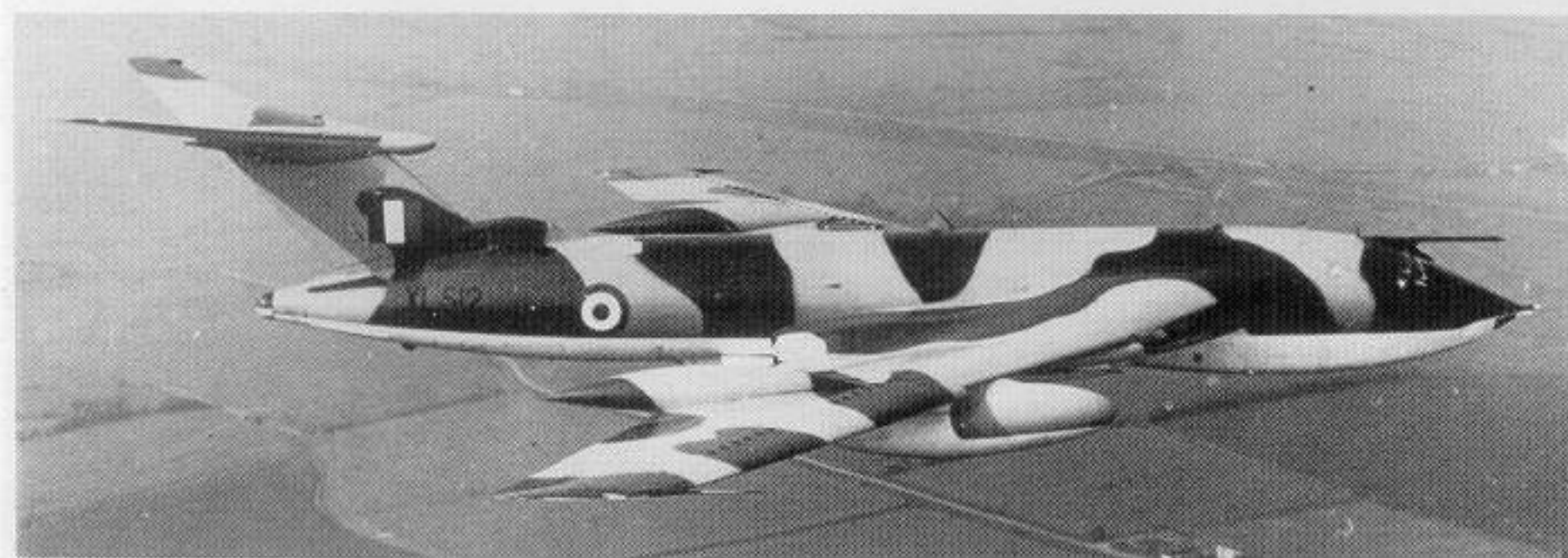
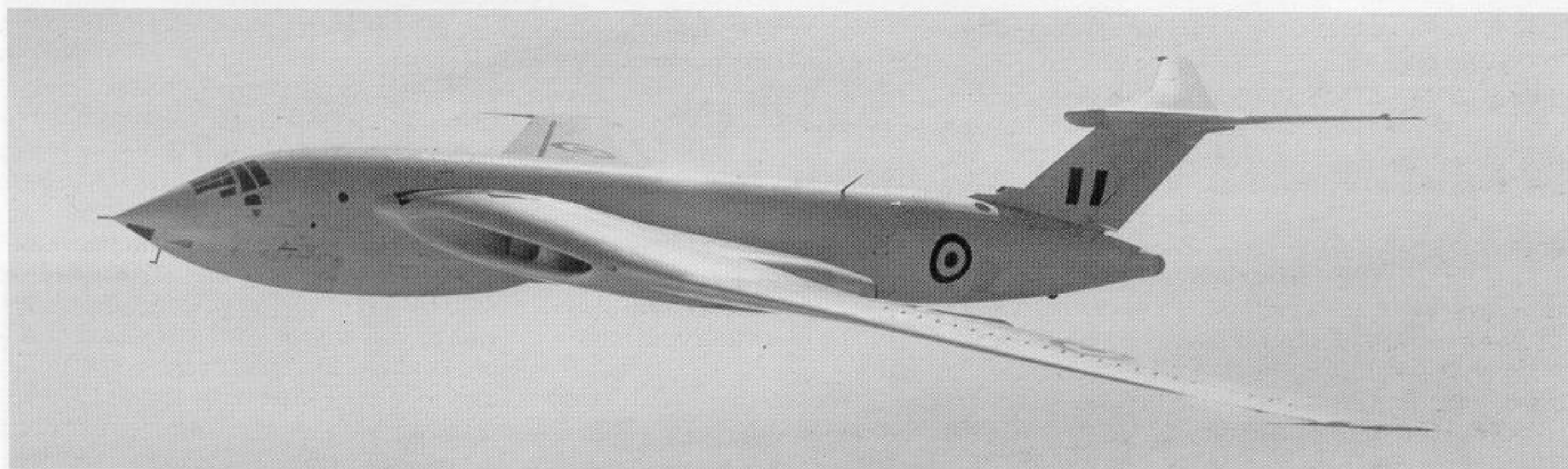
From 1975, twenty-four Conway-powered Victor K.2s began to take up their duties with Nos 55 and 57 Squadrons, plus No 232 OCU; No 214 Squadron was not re-equipped, and the unit was disbanded in early 1977.

#### THE FALKLANDS AND AFTER

The RAF's tanker fleet is maintained primarily to prolong the interception/escort sorties undertaken by fighters against potential intruders into sov-

ereign airspace, and to provide 'back-up' facilities for deployments overseas, but with the outbreak of the South Atlantic War in the spring of 1982 the Victor fleet became heavily committed both in the promotion of the air offensive during the conflict and in the postwar support operations needed to keep the Falkland Islands supplied with personnel and provisions. The celebrated 'Black Buck' long-range bombing and anti-radar raids carried out by the Vulcans could not have succeeded without a complex airborne refuelling scheme requiring the use, for each sortie, of up to eleven Victor tankers – half the fleet.

After the conflict, the Victors' task was alleviated by the introduction of Hercules C Mk 1K tankers, operating chiefly out of RAF Stanley, and only a small detachment was left at Ascension. In May 1985, with the opening of



**Above:** An early Victor B Mk 2. Although no serial number is carried, the aircraft is almost certainly XH668, the first B.2. In common with 'V-bomber' practice at the time, the finish is 'anti-flash' white overall. A comparison with the previous photograph reveals the extended wing roots, bulkier engine fairings and enlarged main intakes of this variant; note, too, the cooling intake at the base of the fin, which would be housed in an extended fairing on later B.2s. By courtesy of Arthur Bentley

**Left above:** With the switch to low-level roles in 1963-64 Victors began to don camouflage, their undersurfaces remaining white. This aircraft, photographed in 1967, is a Blue Steel B.2; the nose of the missile can be made out beneath the starboard intake. Just visible on the original print, above the fin flash, is the yellow lion emblem carried by Victors of the Wittering Wing. Handley Page Association

**Left below:** A close-up view of the Blue Steel missile installed on a Victor B.2; the colour scheme suggests that this is a test weapon. Missile-carrying B.2s were fitted with uprated Conways, each developing some 20,000lb of thrust. Handley Page Association



the new Mount Pleasant Airport, the pressure of South Atlantic operations was lifted, and the last Victor tanker based south of the Equator flew back to Marham the following month.

For the present, Nos 55 and 57 Squadrons, backed by No 232 OCU,

continue their task as the premier tanking units in the Royal Air Force, although it is probable that during 1986 one of the squadrons will be disbanded and the OCU reduced to the status of a Flight. Air-to-air refuelling is increasingly being taken over

by the VC-10s of No 101 Squadron and the Tristars of No 216 Squadron, both based at Brize Norton, and it is only a matter of time before the Victors are phased out altogether. When that day arrives, a unique shape will have disappeared from the skies.



**Above:** A Victor K Mk 2 on the Marham flight line on a wet November afternoon in 1984. The aircraft displays the recently introduced Hemp and Light Aircraft Grey colour scheme, making the machine extremely difficult to spot from altitude

when parked on concrete hardstandings. This paint finish is gradually replacing the more traditional camouflage and is applied as each aircraft emerges from major servicing.

**Below:** The tanker tanked: XL231, No 57

Squadron, is topped up by a fuel bowser prior to a sortie, November 1984. Victor K.2s can receive fuel whilst airborne as well as dispense it and are thus capable of extraordinarily lengthy tanking flights, as during the Falklands War.





# AIRFRAME

Below: Victor K Mk 2 XL192, photographed at Marham in February 1985; the aircraft is assigned to No 57 Squadron, whose base facilities can be seen in the background. The paint finish is Hemp and Light Aircraft Grey, with pink and pale blue national insignia and white fuselage serials. This view emphasises the sleek lines of the Victor, the windscreen panels and upper cockpit transparencies following the smooth

curve of the nose contours; the characteristic high-set tailplane; and the cavernous intakes for the four Rolls-Royce Conway turbojets installed in pairs in the wing roots. The prominent inflight-refuelling probe is fitted above the cockpit, and, in typical style, the two ram air turbine (RAT) intakes are open whilst the aircraft is parked. Note the CO<sub>2</sub> extinguisher in the left foreground.







**Above:** A close-in view of the nose of XL192, showing the position of the refuelling probe and, to starboard of the probe mounting, the outline of the co-pilot's escape hatch.

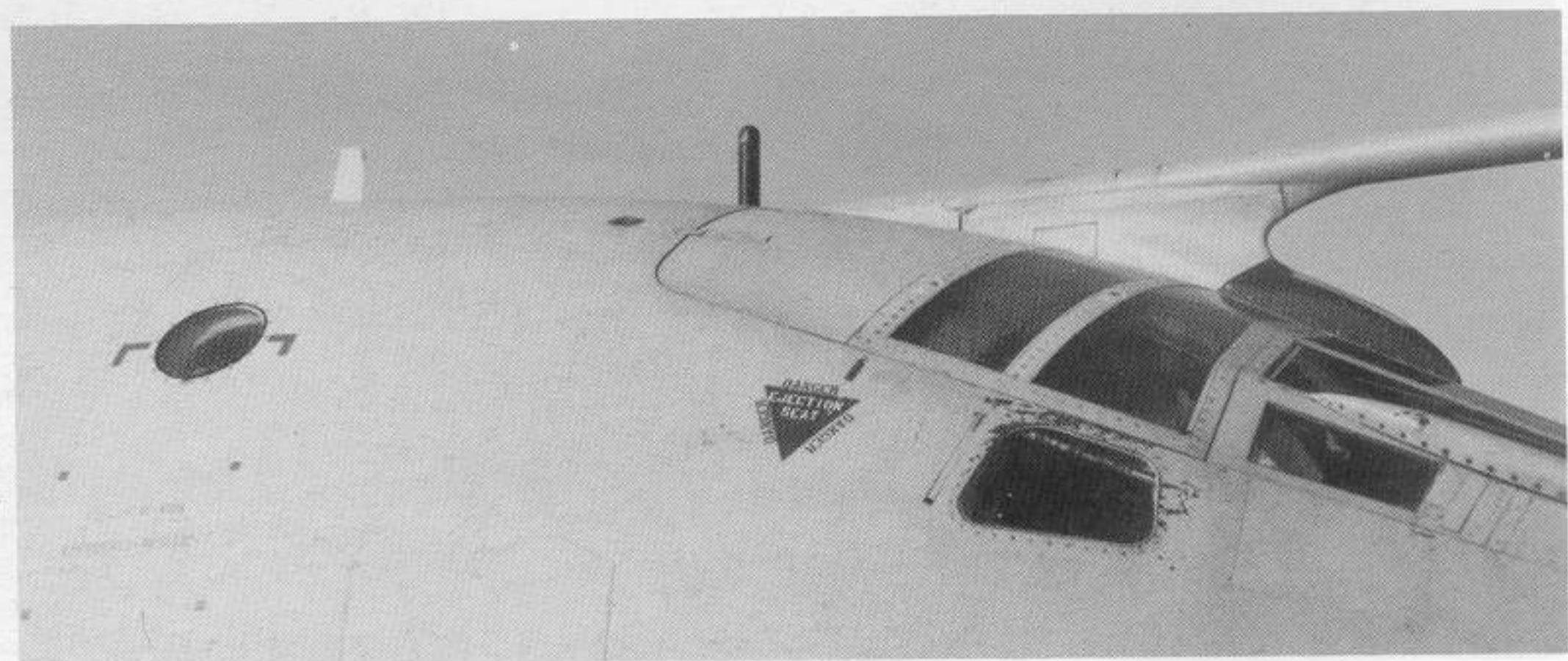
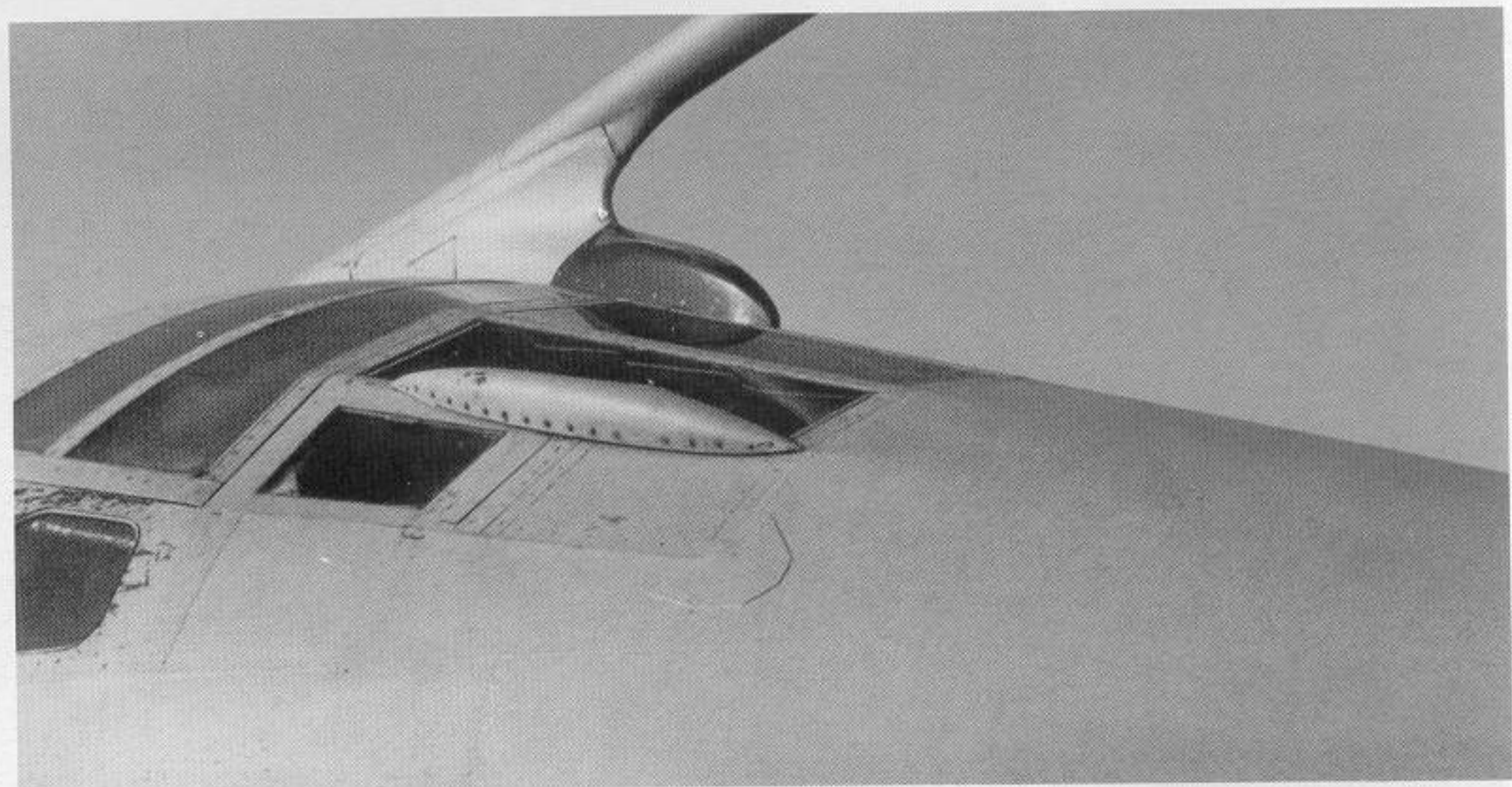
**Right:** The bulge at the base of the refuelling probe houses a pair of miniature searchlights for illumination of the unit during night sorties. The fairing adjacent to the outboard windscreen panel houses the co-pilot's screen wiper unit.

**Right below:** The upper periscope in the extended position; one function of this equipment is to enable the crew to check on wing icing.

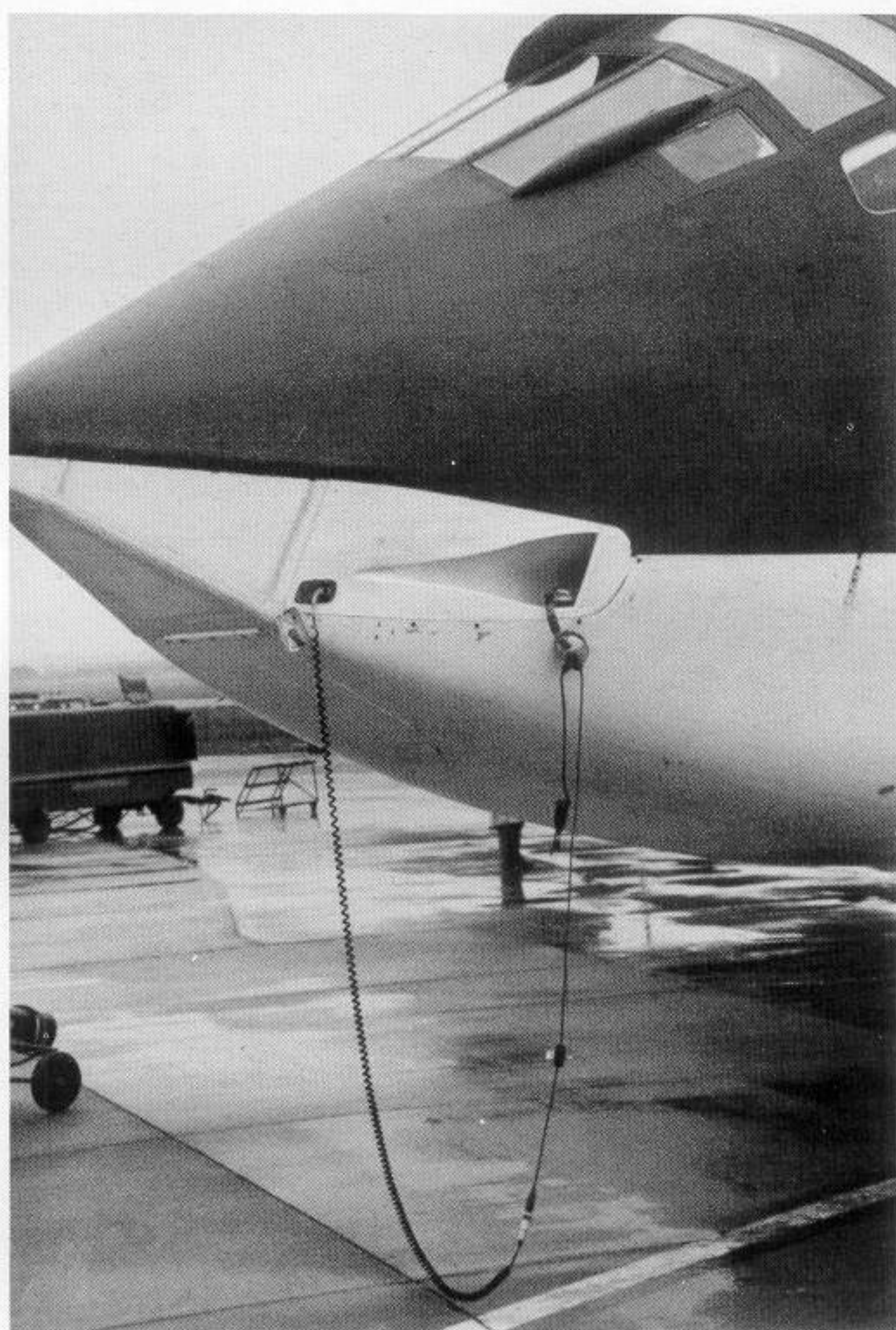
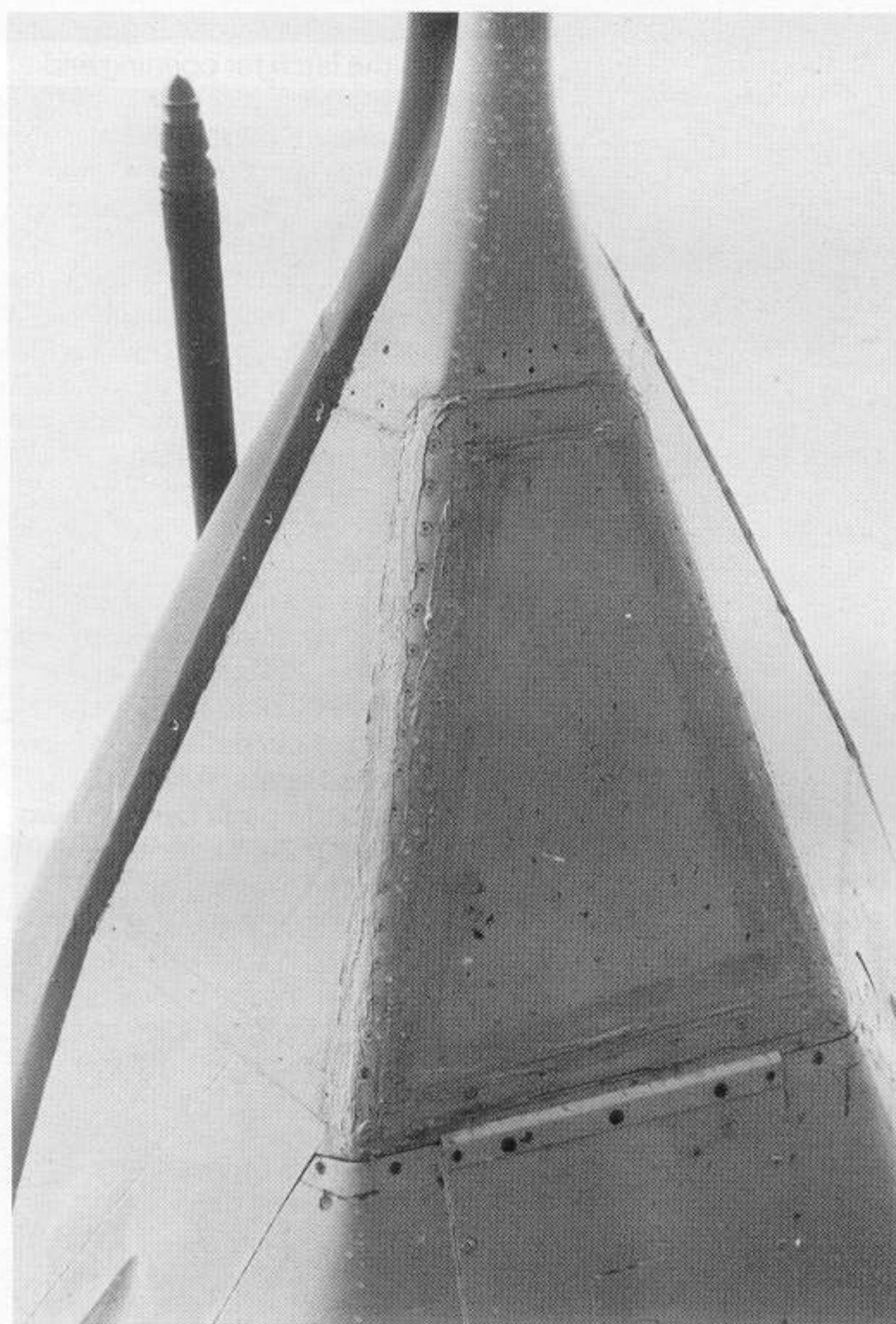
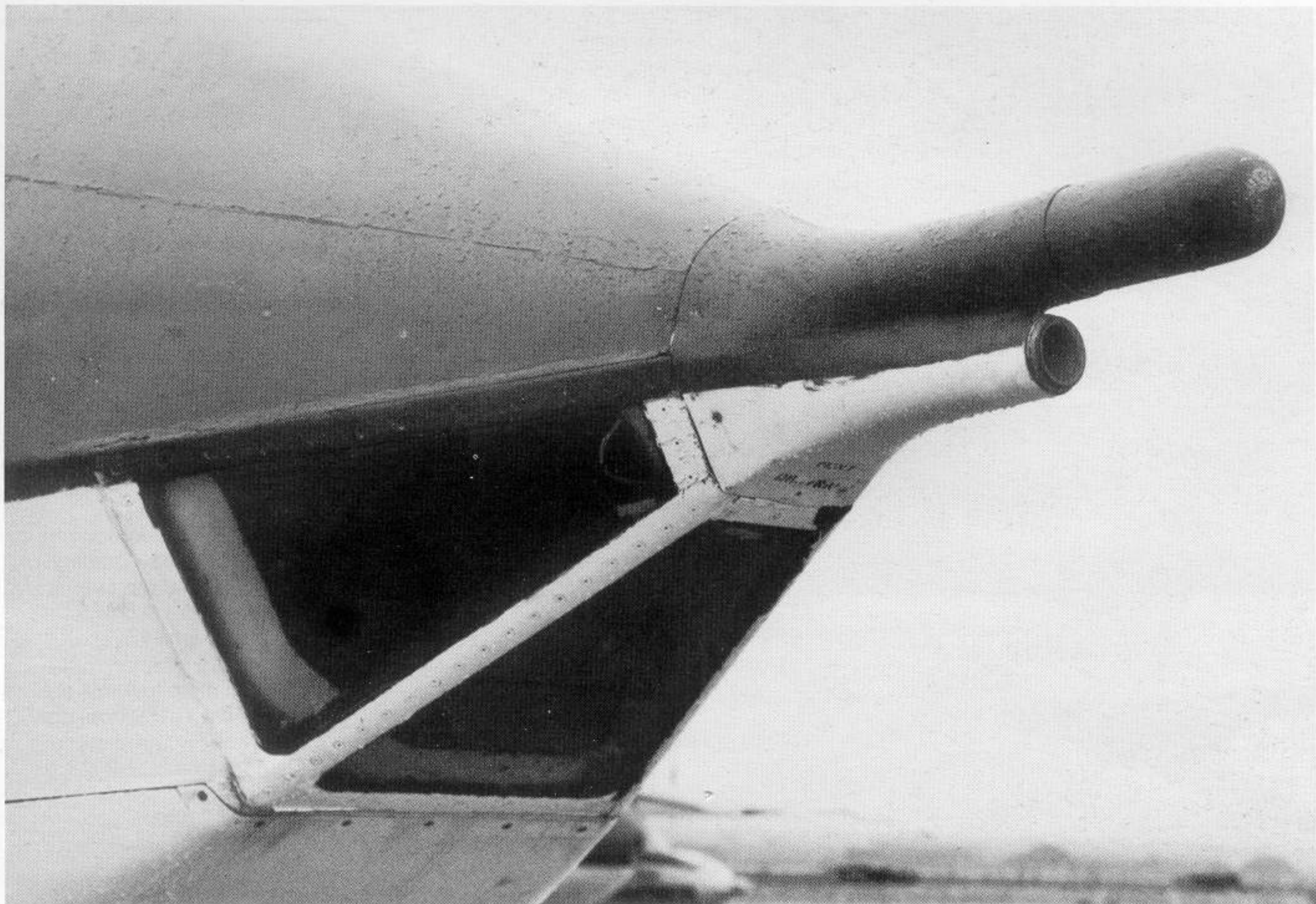
**Opposite page top:** The extreme nose features a now-redundant antenna; below this fitting is the artificial feel pitot intake.

**Opposite page bottom left:** The disused bomb-aimer's window, blanked off with sheet metal on this Victor.

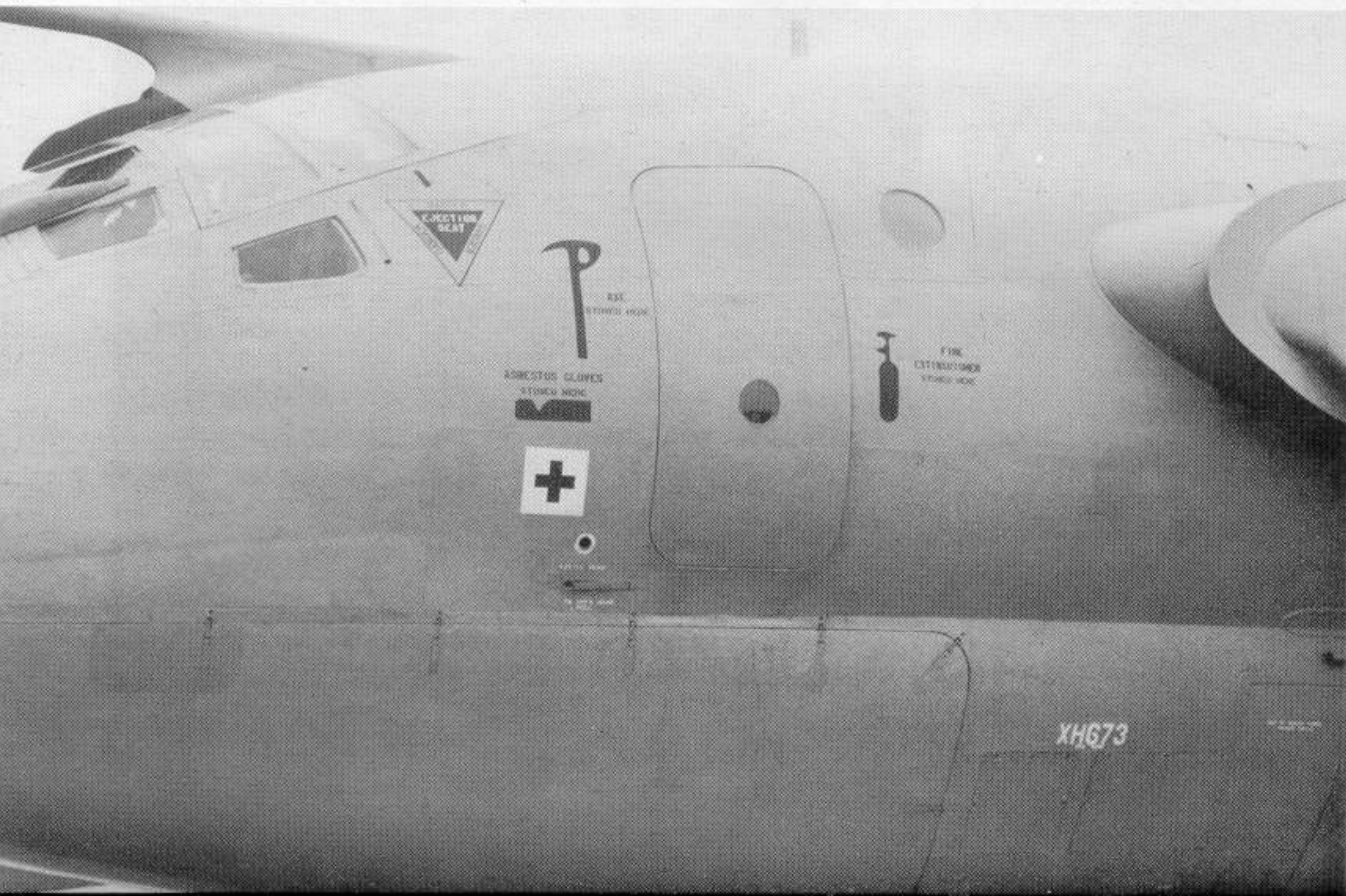
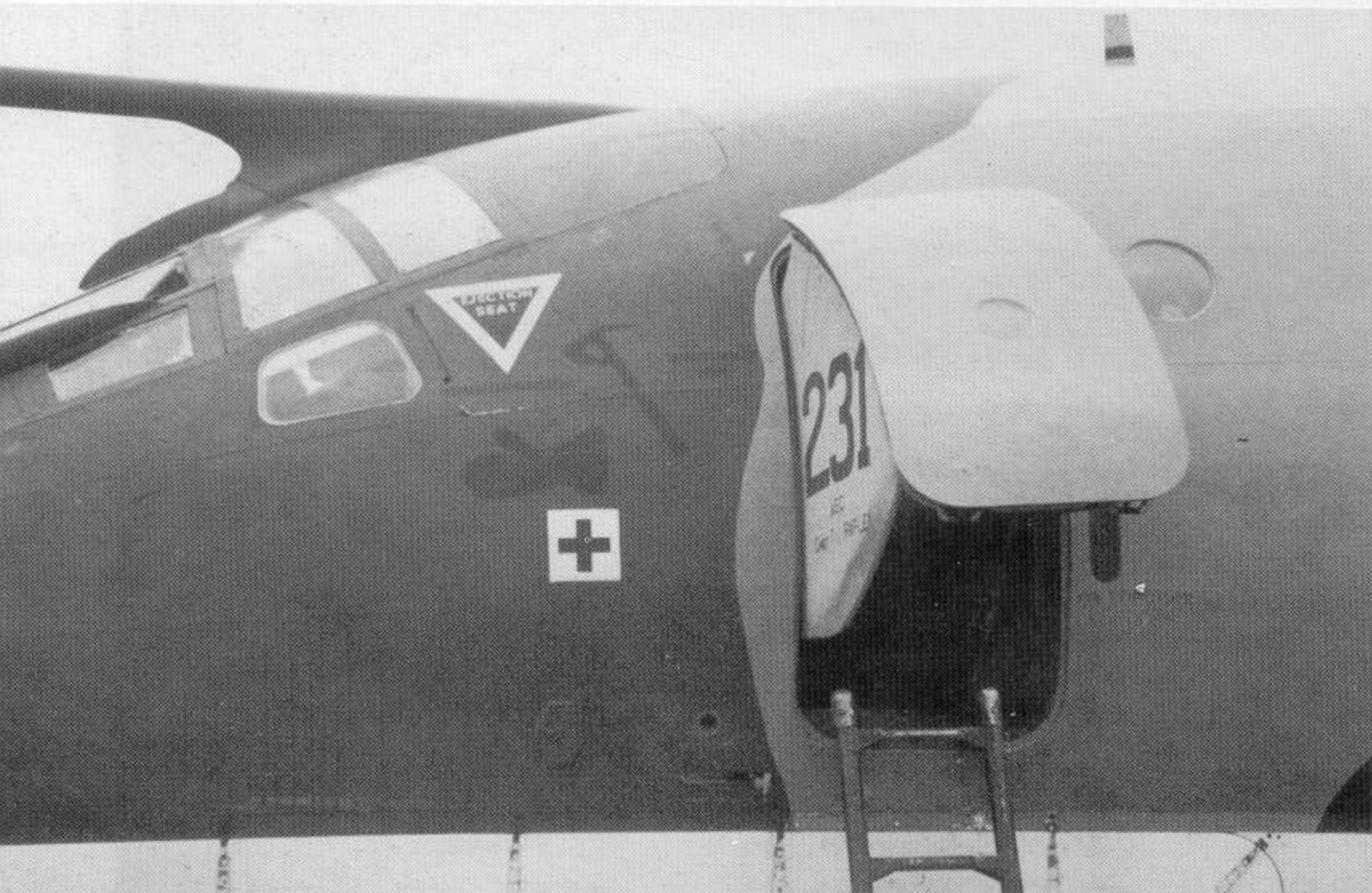
**Opposite page bottom right:** 'See-off' procedure requires intercom between groundcrew and flight crew via a headset seen here hanging ready on the port nostril intake.











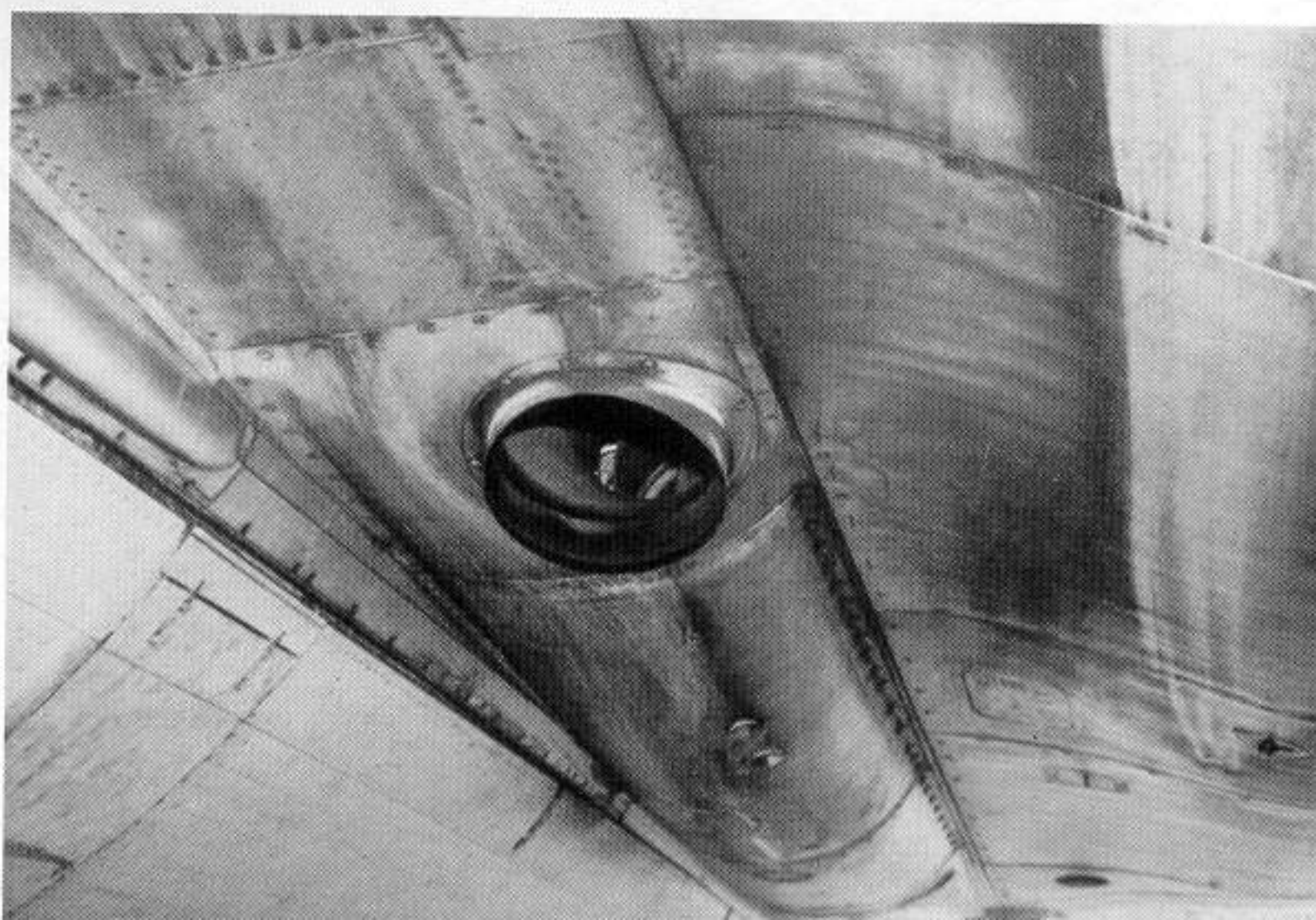
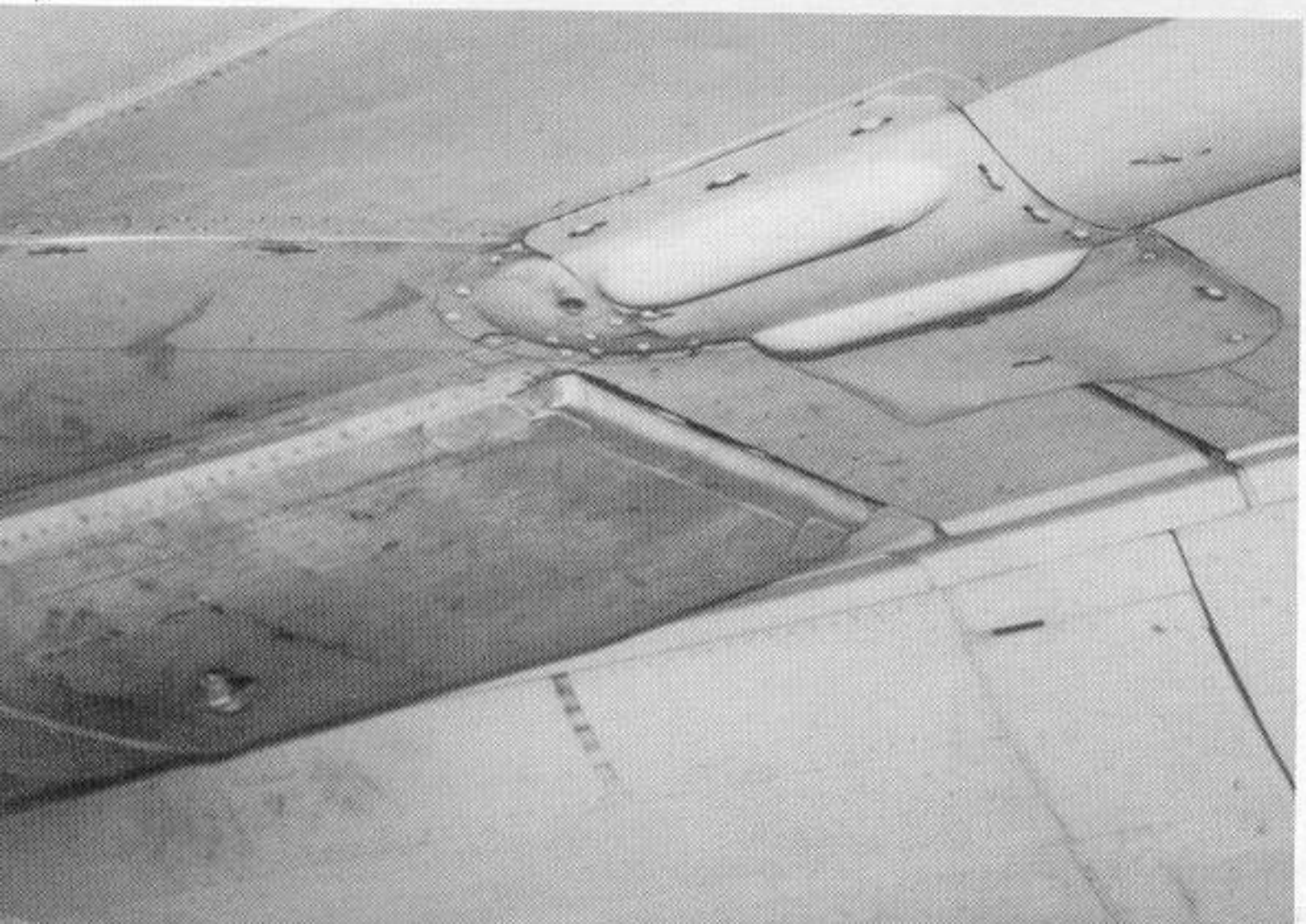
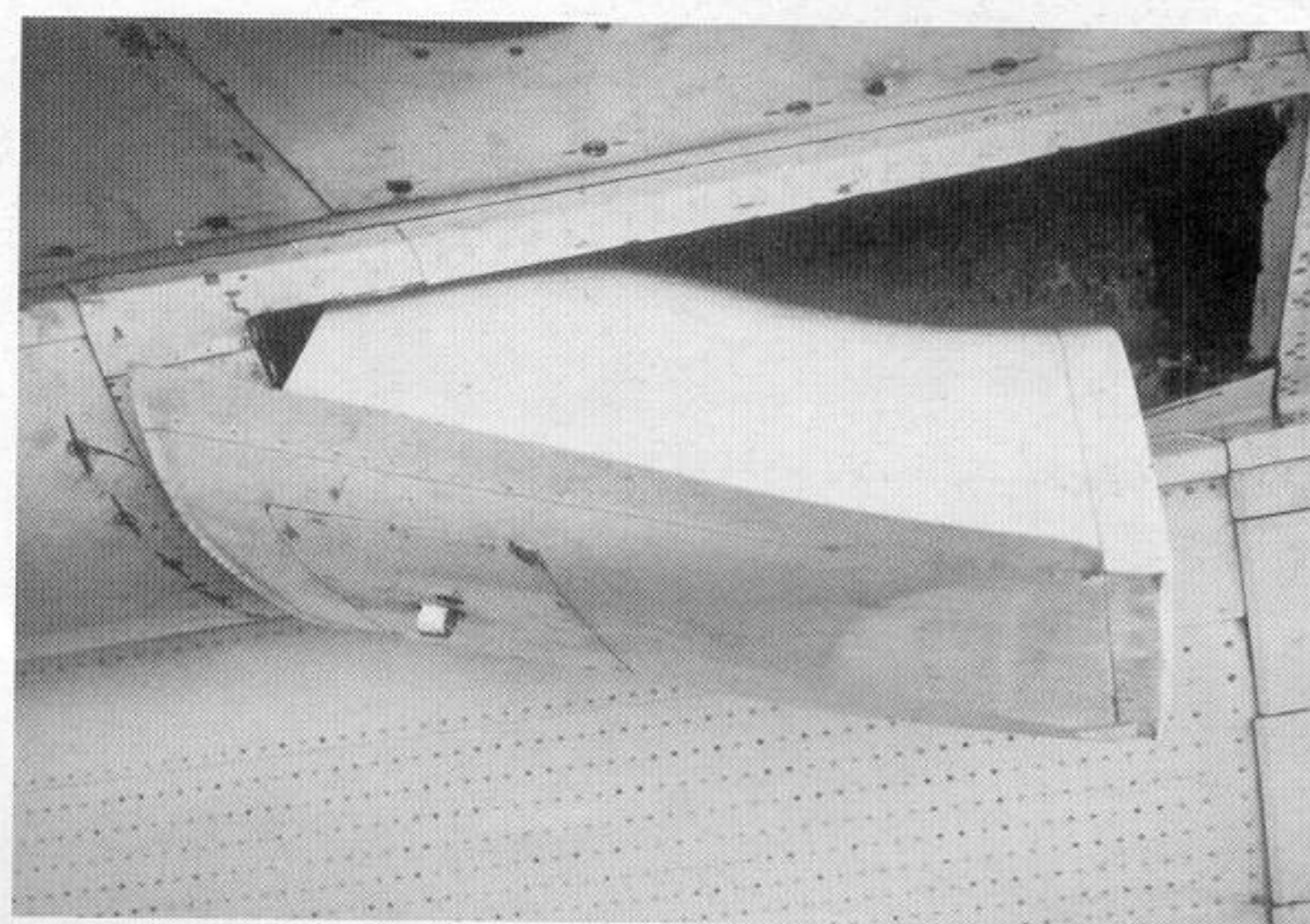
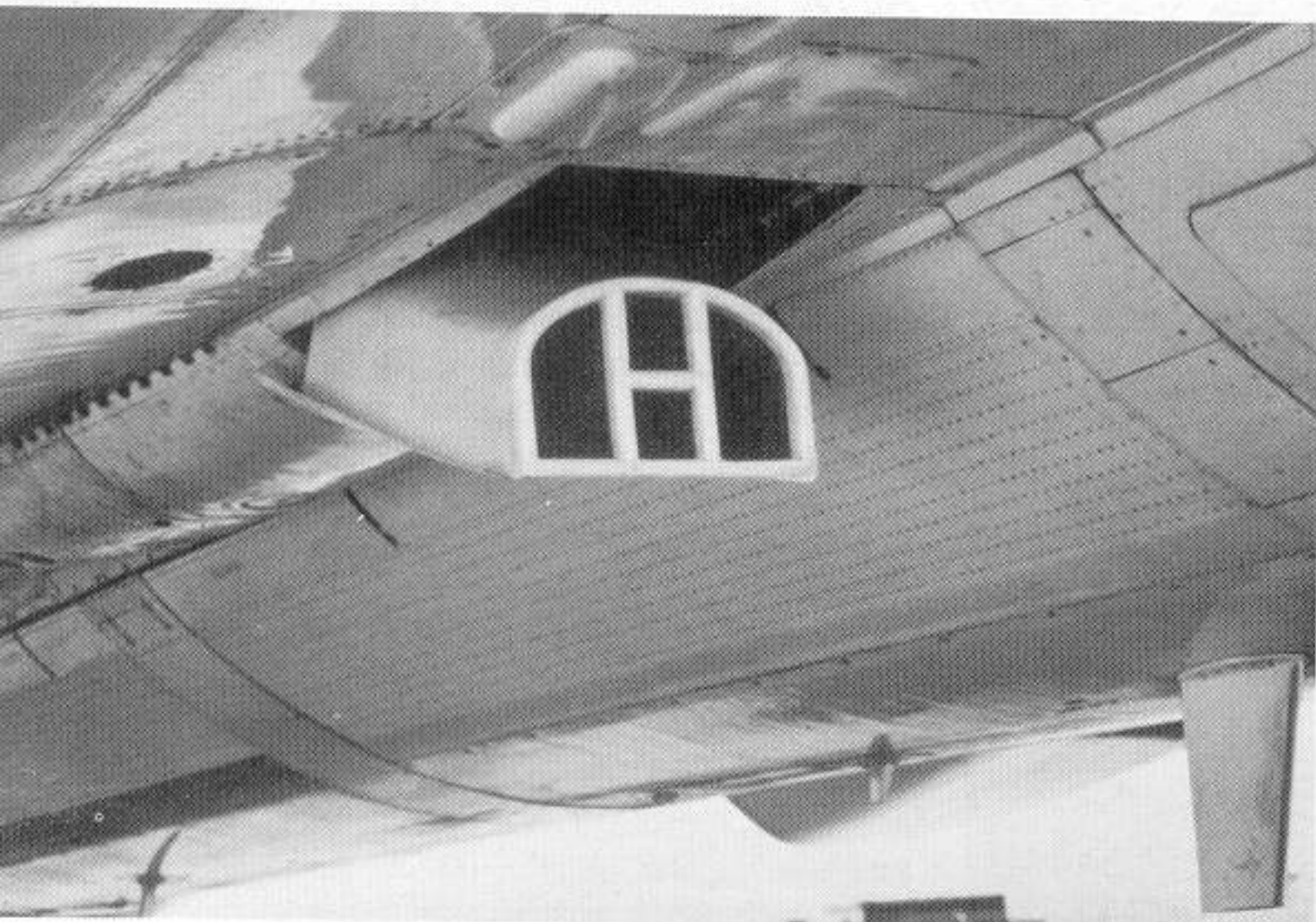
**Left:** Standardised markings? Not if these three aircraft are anything to go by! The information symbols confirm the presence within the aircraft of emergency equipment, but both the position and the form of the symbols for the axe and asbestos gloves vary – and even those for the first aid kit are subtly different. Note, too, that the ejection seat warning triangle for XL231 (centre) has a white surround, and that this aircraft features a black band around its dorsal UHF antenna. The photographs also illustrate the practice of painting the aircraft serial number in small characters on the forward lower fuselage in addition to the main position towards the tail, whilst XL189 (top) and XL231 show some marked changes of hue in their camouflage, most particularly in the grey above the personnel door but also, in the case of the former, in the green across the main intake. The fitting near the lower left-hand corner of the entry door is the latch for opening and locking it.

**Opposite page top:** As a conventional bomber, the Victor carried a maximum load of thirty-five 1000lb bombs, and its capacious weapons bay made the aircraft an ideal candidate for conversion to the tanker role since it could incorporate not only fuel tanks but also a hose drum unit; the other 'V-bomber' to see recent (albeit limited) service as an aerial tanker, the Vulcan, required an externally fitted HDU. The Victor K.2's bay is of course now sealed, and the 'petal' type airflow deflectors visible here no longer function.

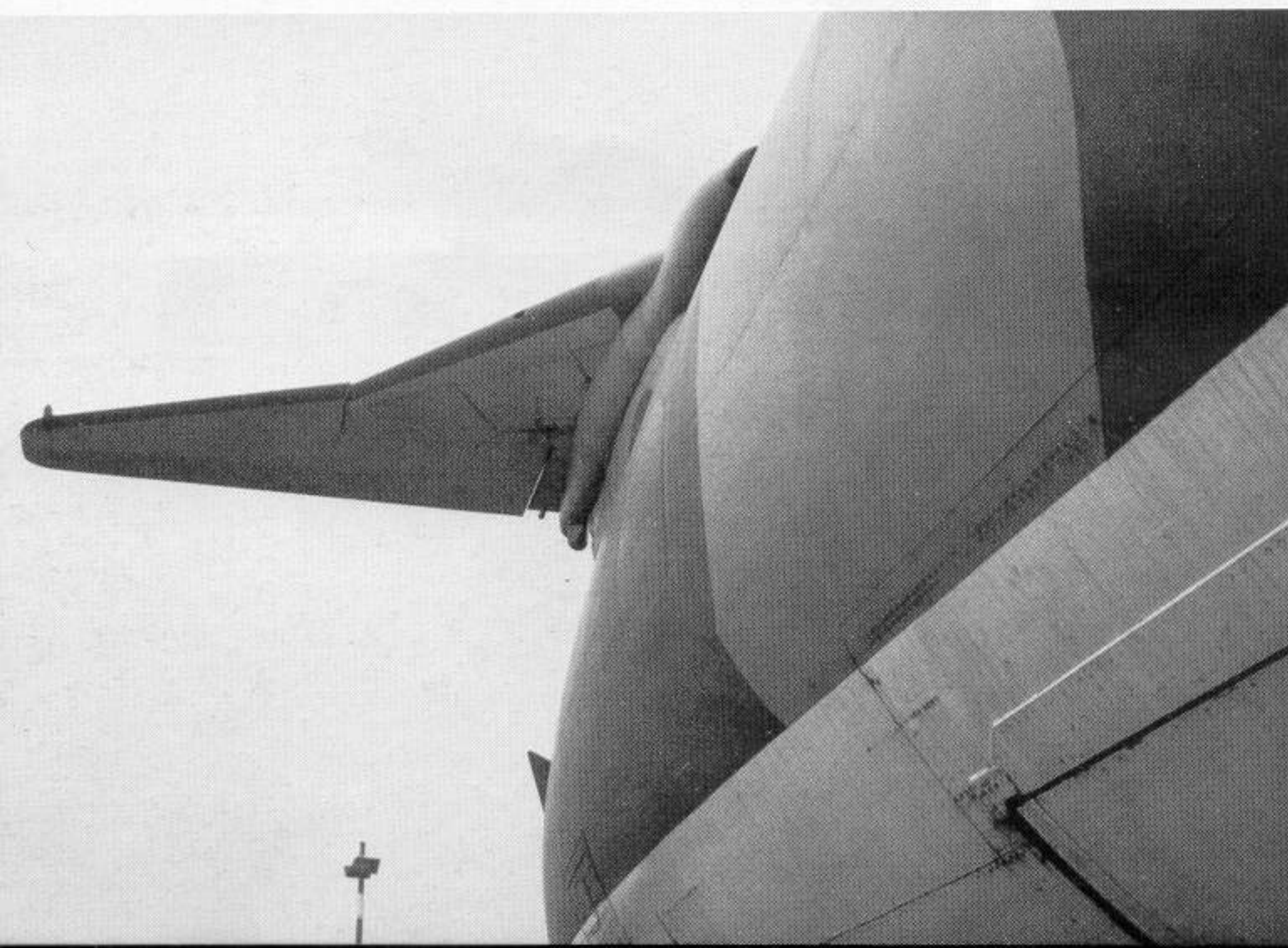
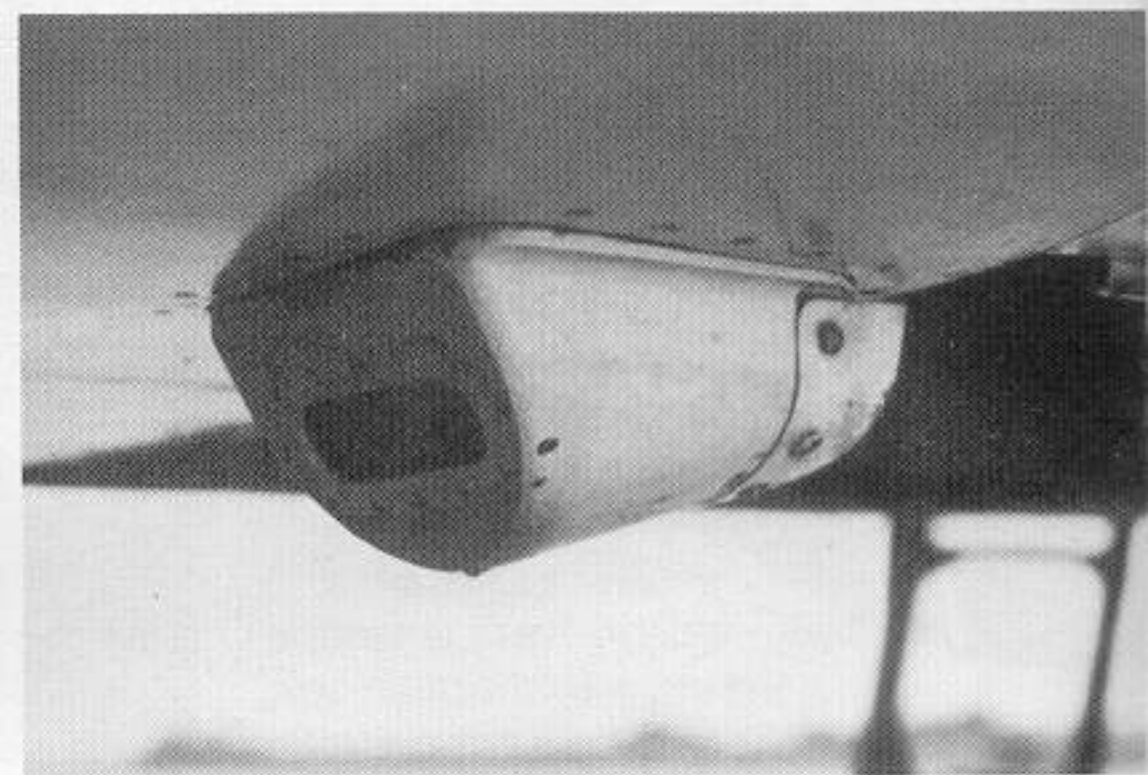
**Opposite page centre:** Two views of the Victor's Auxiliary Airborne Power Plant, installed within the starboard wing root. The Artouste AAPP provides power and air for main engine start-up.

**Opposite page bottom:** The Artouste intake in the retracted position, the illustration on the right showing the unit's exhaust. It is unusual for the AAPP to be closed up when the aircraft is on the ground.









**Above left:** The Victor's ground power connection point; further aft, the aircraft's nav kit is revealed through the open access door (the latter dubbed 'elephant's ear' by RAF personnel). The photograph shows well the forward demarcation line between the upper-surface Hemp and the undersurface Light Aircraft Grey paintwork.

**Top right:** Outside air temperature probe, located forward of the nose undercarriage bay on the port side of the aircraft.

**Above right:** As an aid to tanking, the Victor is fitted with a rear-view periscope beneath the cockpit and offset slightly to starboard. It is used by the Nav Radar (Refuelling Operator) for observation of the fuselage-mounted HDU and wing-mounted pods (and their drogues when deployed) during fuel transfer.

**Left:** Rear fuselage, starboard side, showing typical roundel and serial number positions on camouflaged aircraft. The quick-release latches for the rear access panel stand out prominently against the white undersurface finish; to the right, the HDU carriage is seen in the raised position.

**Bottom left:** Starboard rear fuselage and tailplane; the size of the elevator is apparent. Note that the camouflage boundaries are 'hard'.

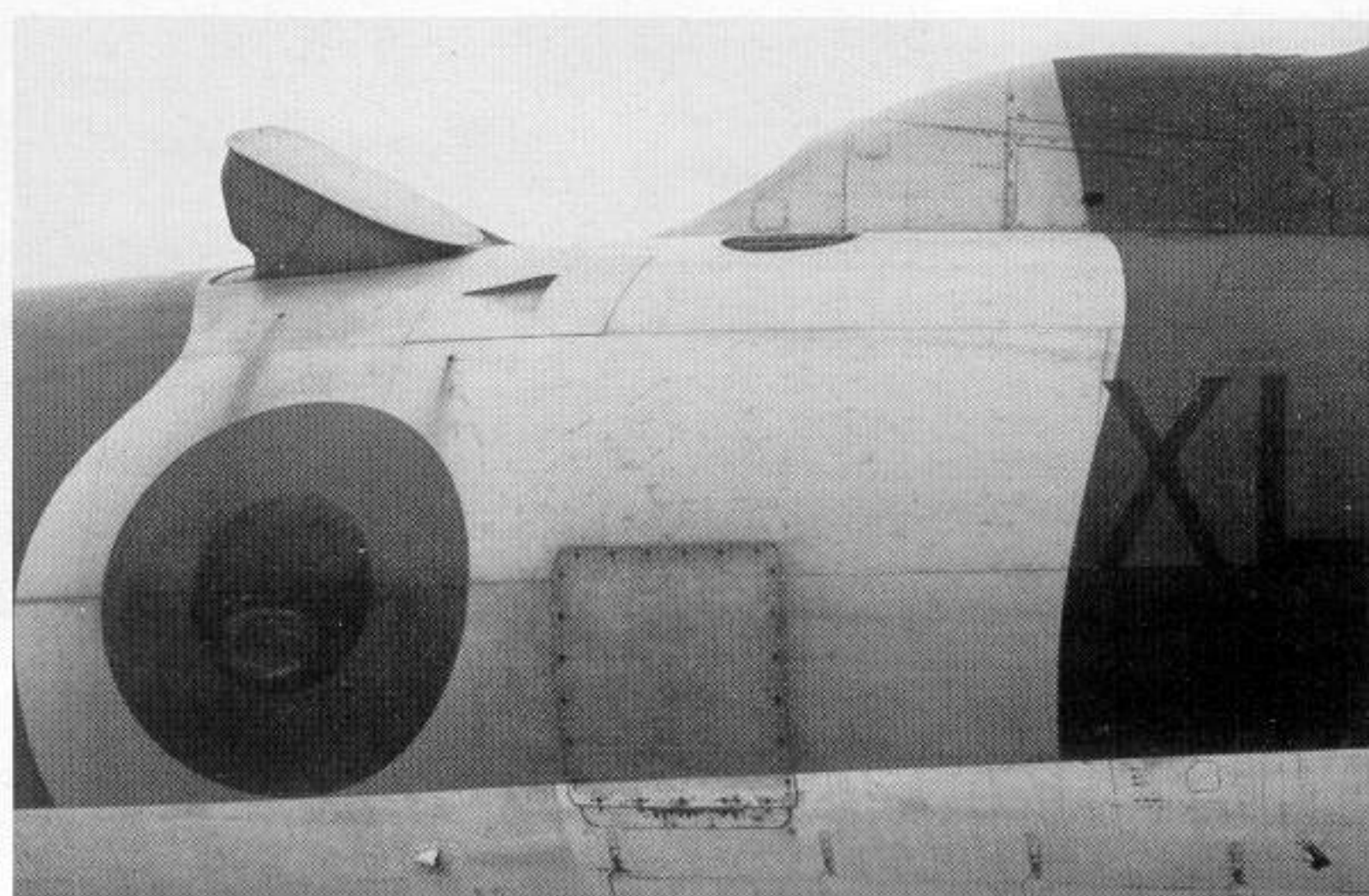
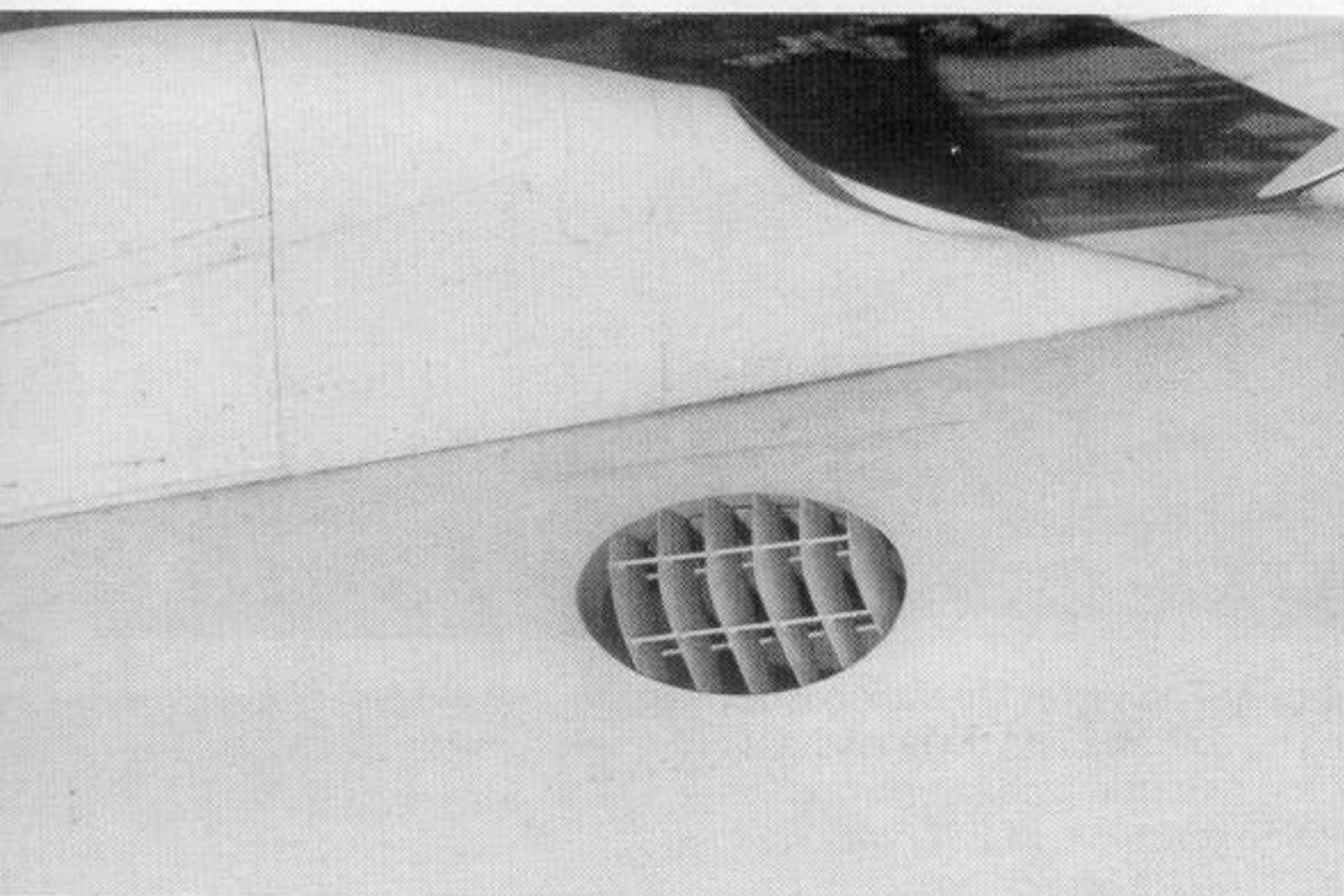
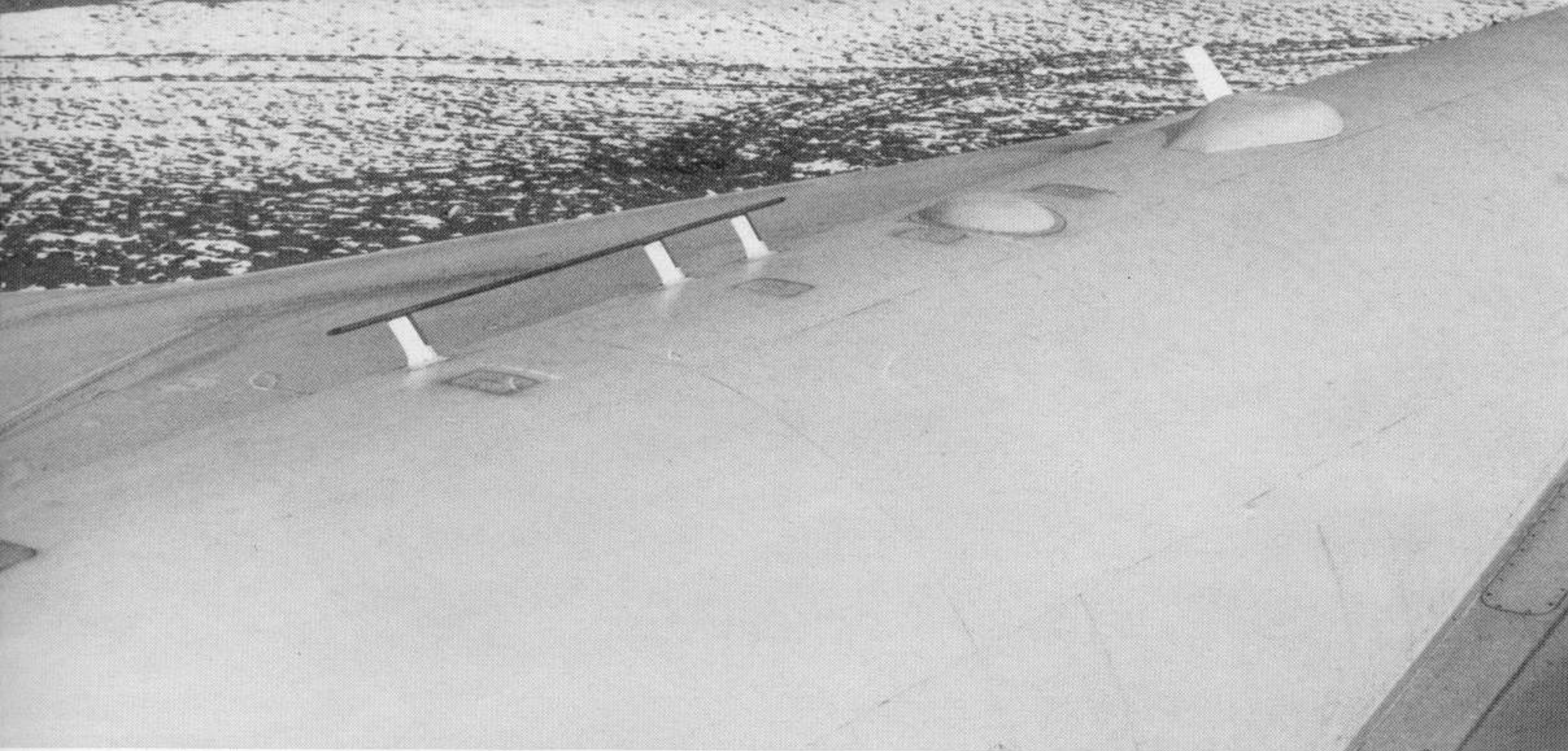
**Opposite page top:** Upperfuselage antennas, viewed from a position over the starboard wing trailing edge: the 'towel rail' radio compass sense aerial, the domes of the D/F aeriels and the offset upper UHF aerial.

**Opposite page centre left:** Ram air turbine exhaust grille and fin root cooling duct fairing.

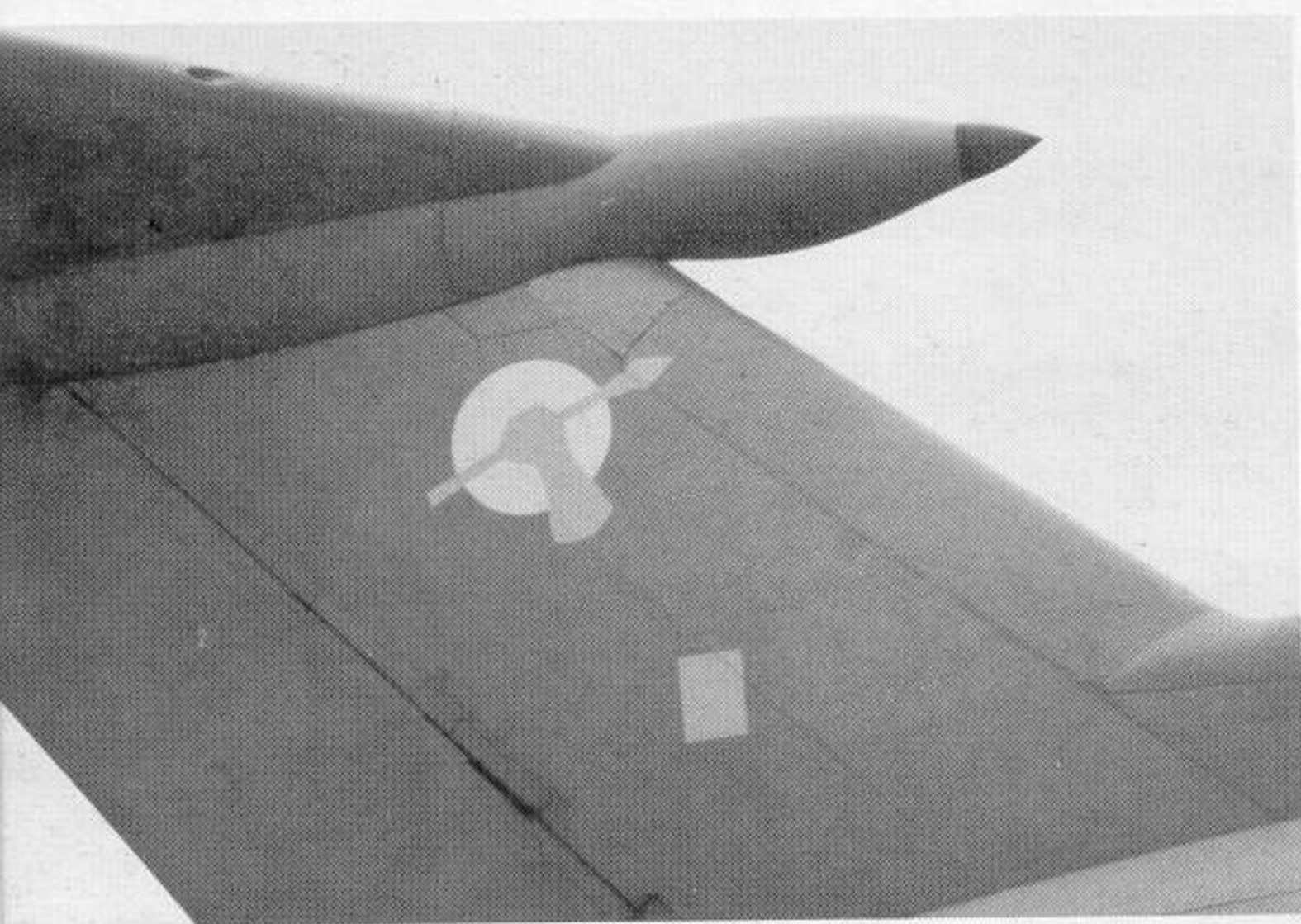
**Opposite page centre right:** Port rear fuselage detail; note the 'wear and tear' around the No 4 Freight Bay hatch. The NACA-type inlet near the RAT scoop is present on the port side only.

**Opposite page bottom:** General view of rear fuselage; note colour variations.









**Above:** The Victor Operational Conversion Unit at Marham has no aircraft of its own, all the Victors being on the strength of the two front-line squadrons. However, in 1984–85 one No 57 Sqn machine, XL231, was wearing No 232 OCU markings.

**Left:** The No 55 Sqn emblem, pale blue and white on hemp-finished Victors.

**Below left:** The emblem of No 57 Sqn: a dark blue phoenix arising from red flames, with dark blue roman numerals below. Each design carries a thin white outline.

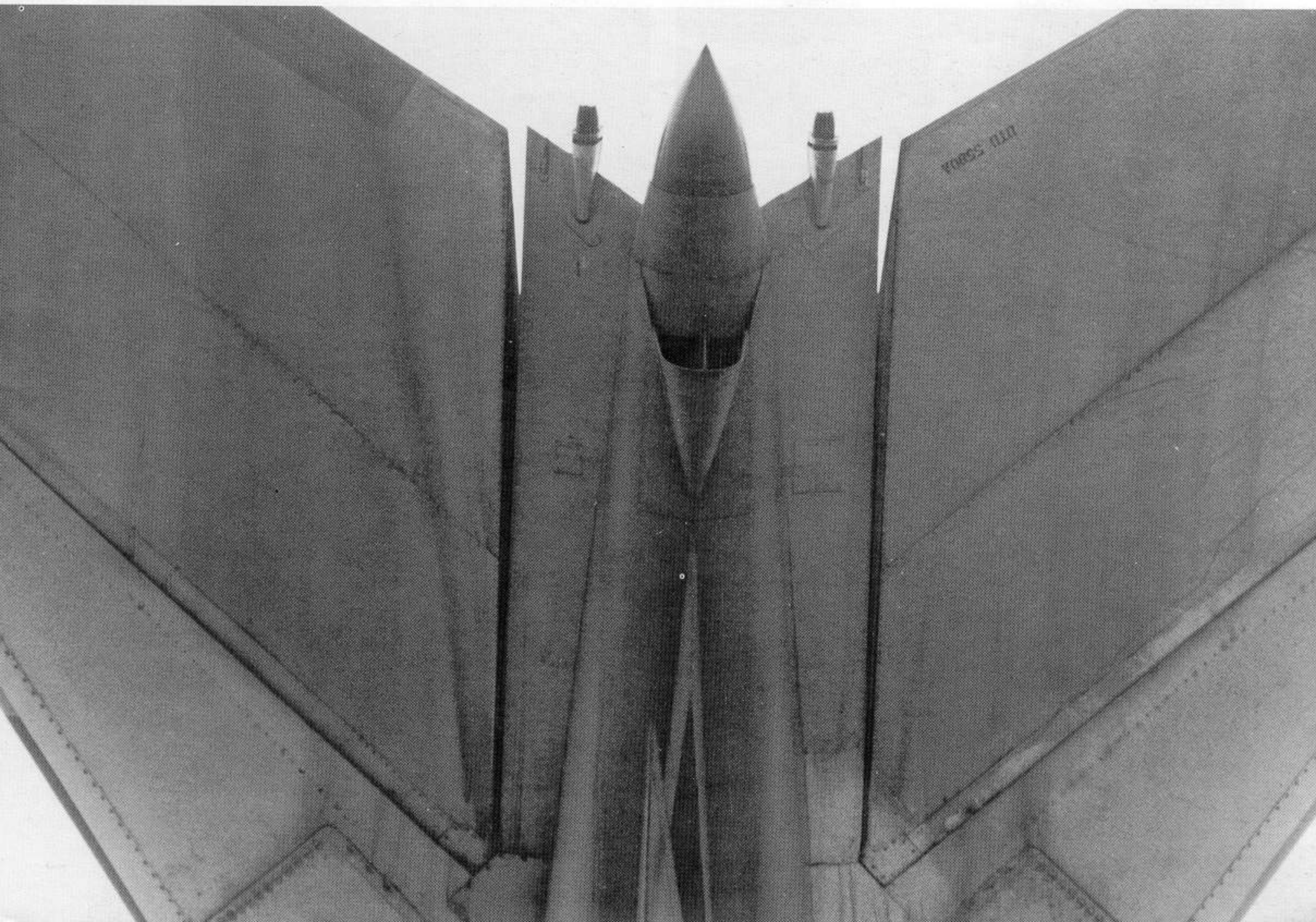
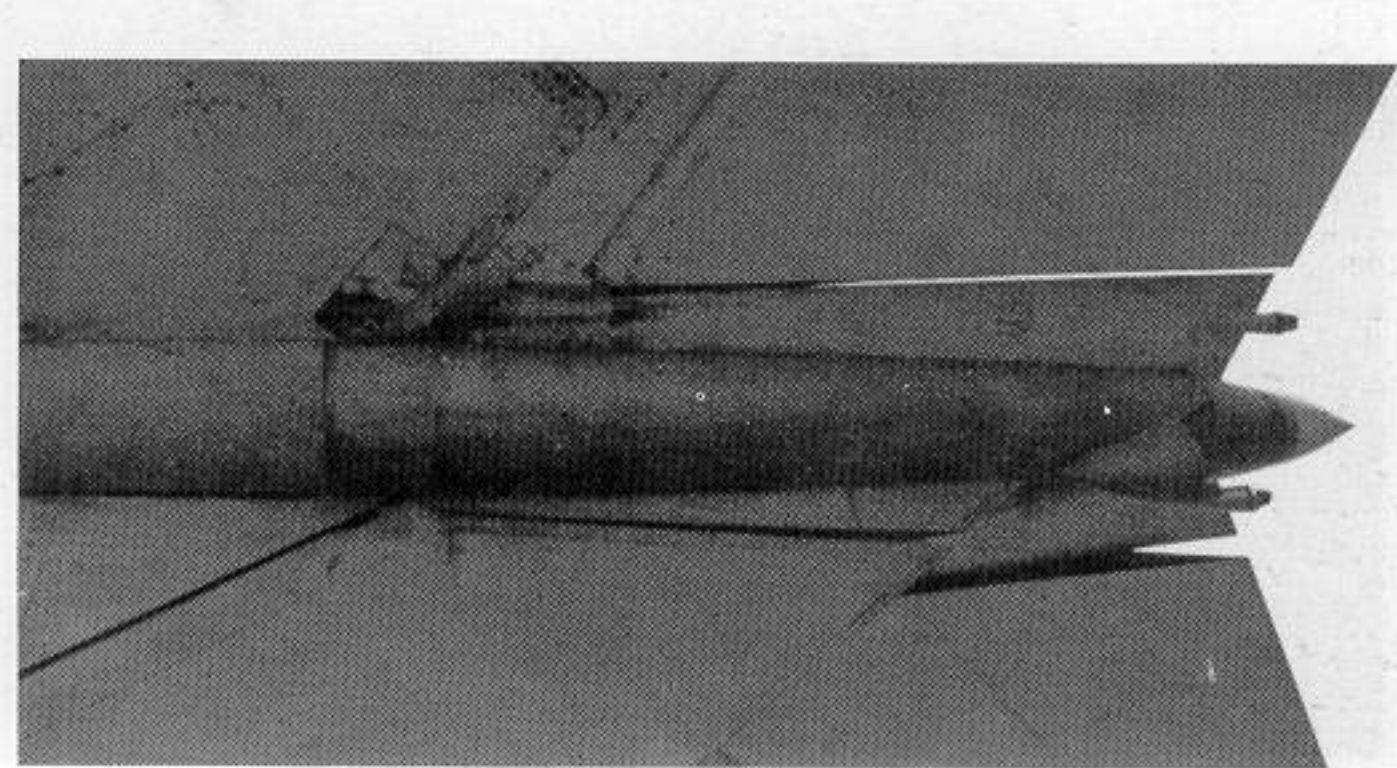
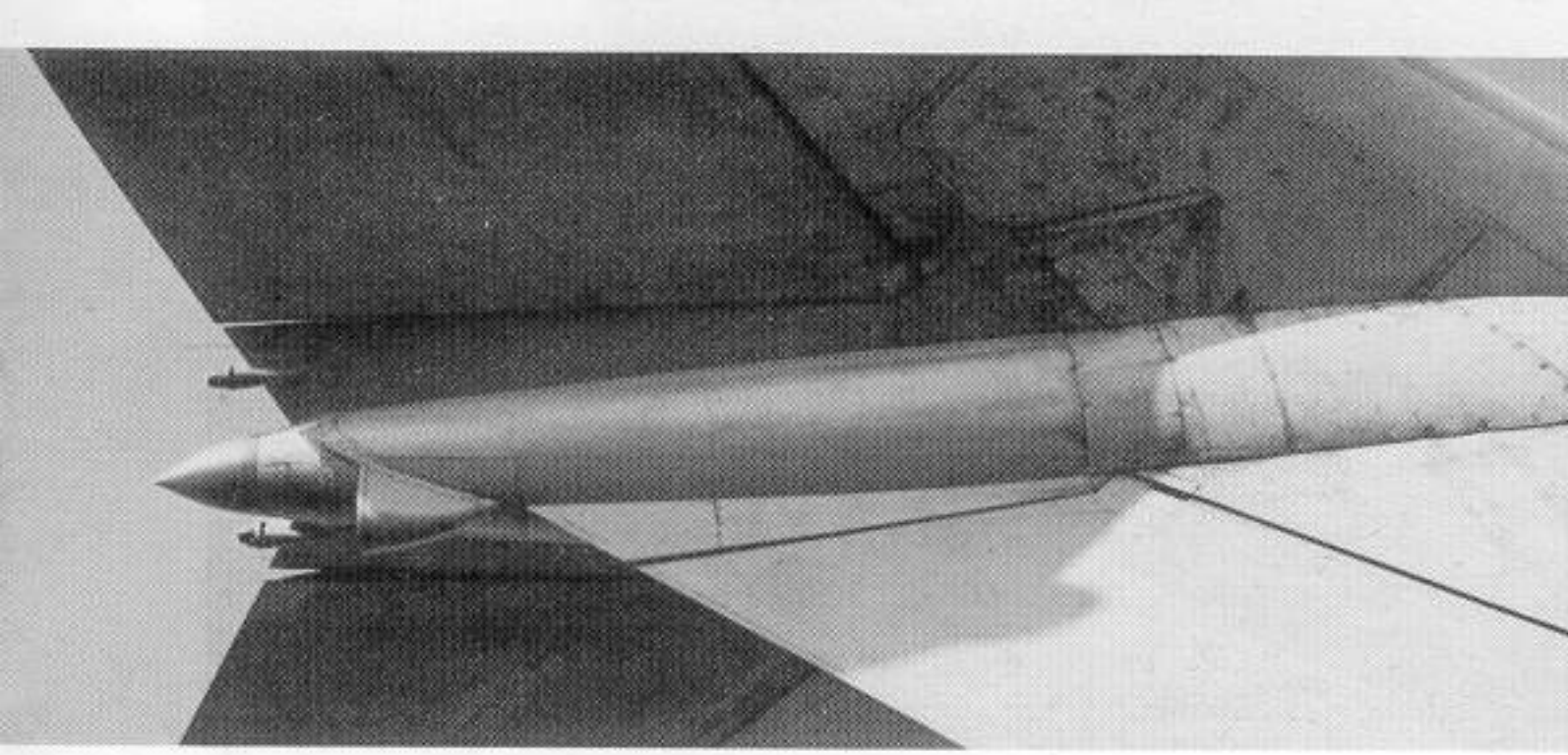
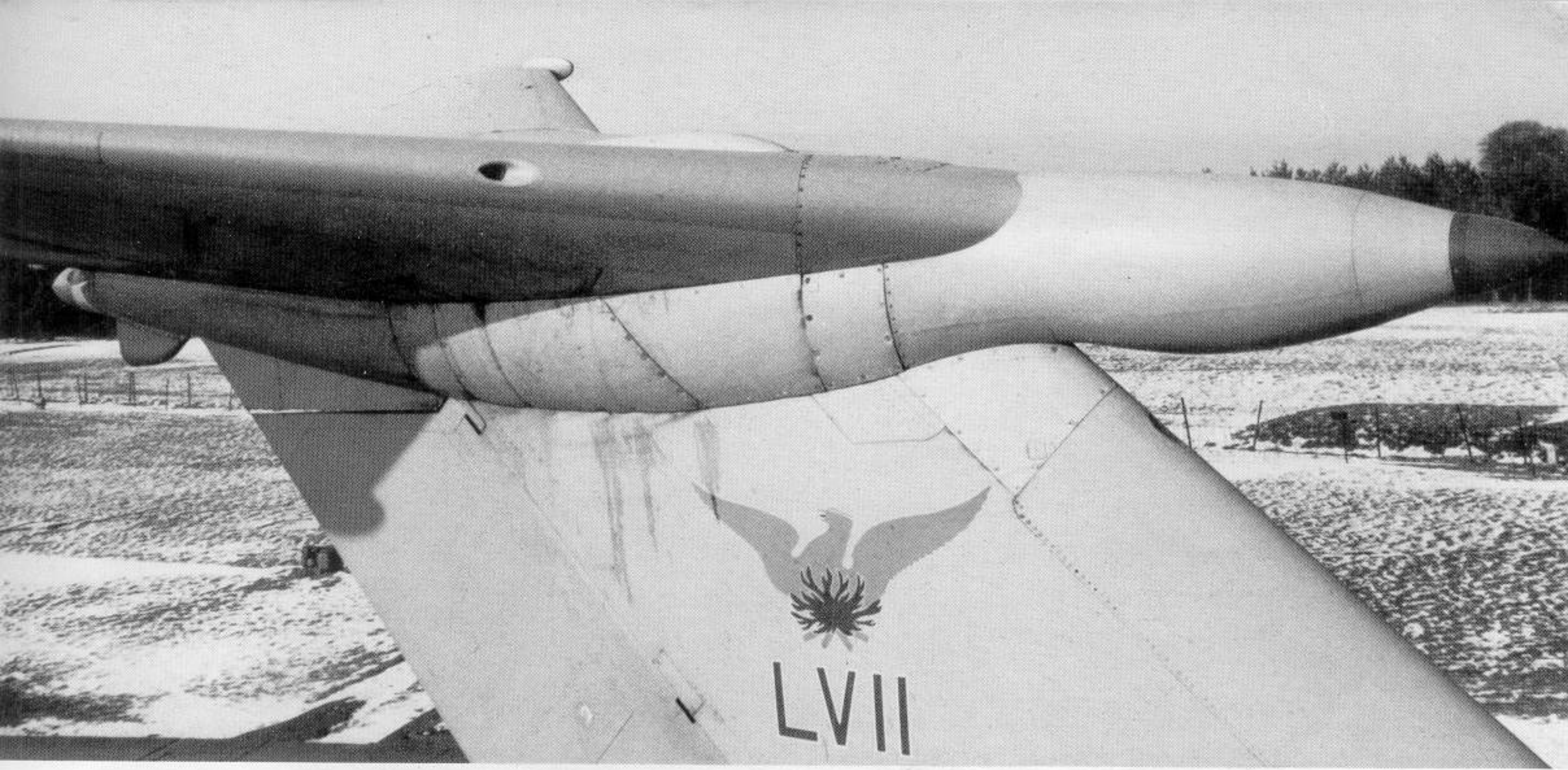
**Below right:** Ahem! The No 57 Sqn emblem *should* face to the left on *both* sides of the fin (see top of next page). The 'odd man out' here is XH673, November 1984.

**Opposite page top:** The fin/tailplane fairing, showing the radar warning receiver (RWR) at the forward tip, the intake for the elevator powered flying control unit (PFCU) in the tailplane leading edge and, beyond, the elevator mass balance.

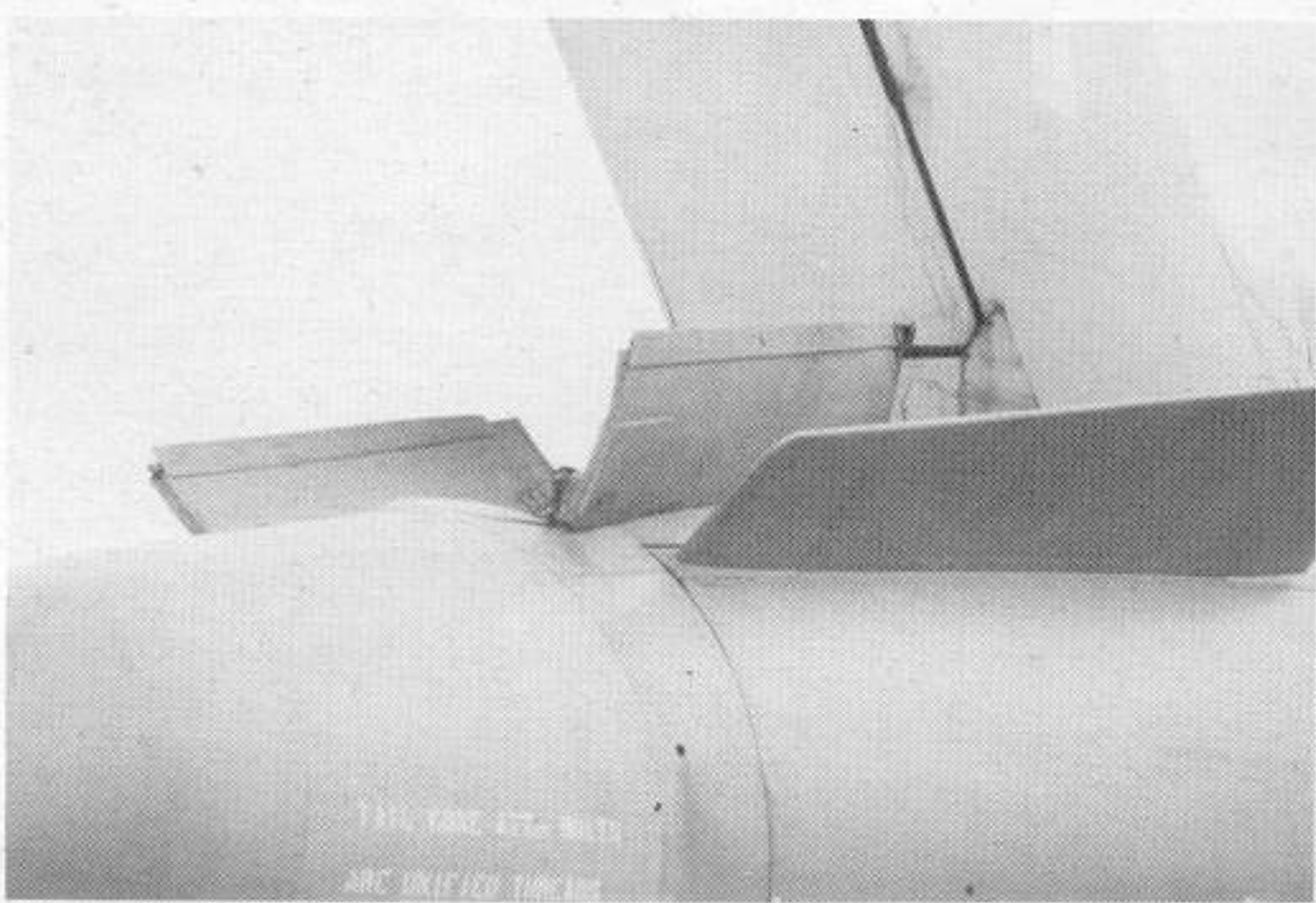
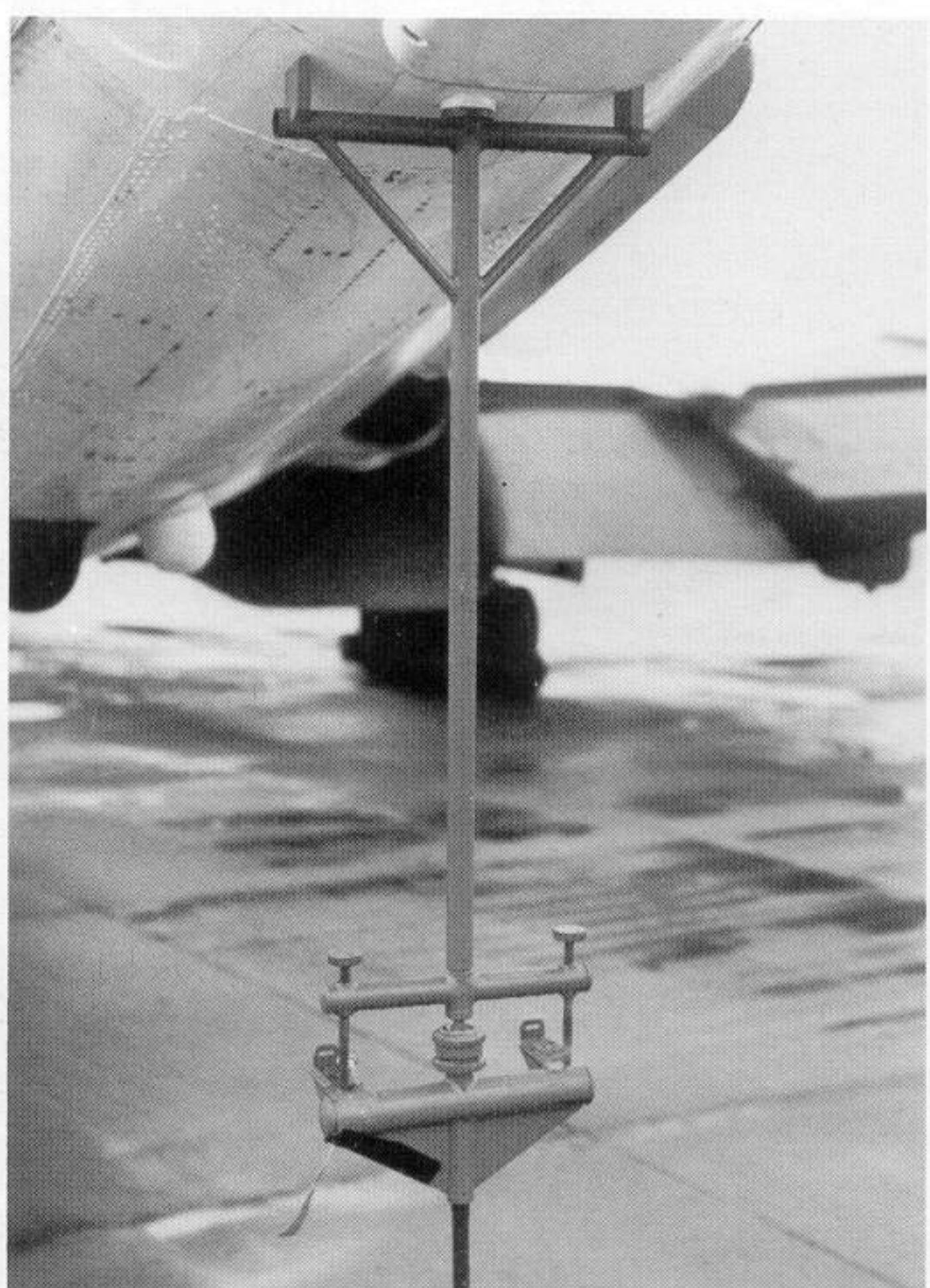
**Opposite page centre and bottom:** RWR is fitted also at the rear tip of the fairing, between the tail navigation lights. The RWR modification displaced the anti-icing exhaust, which is now located closer to the fin trailing edge.



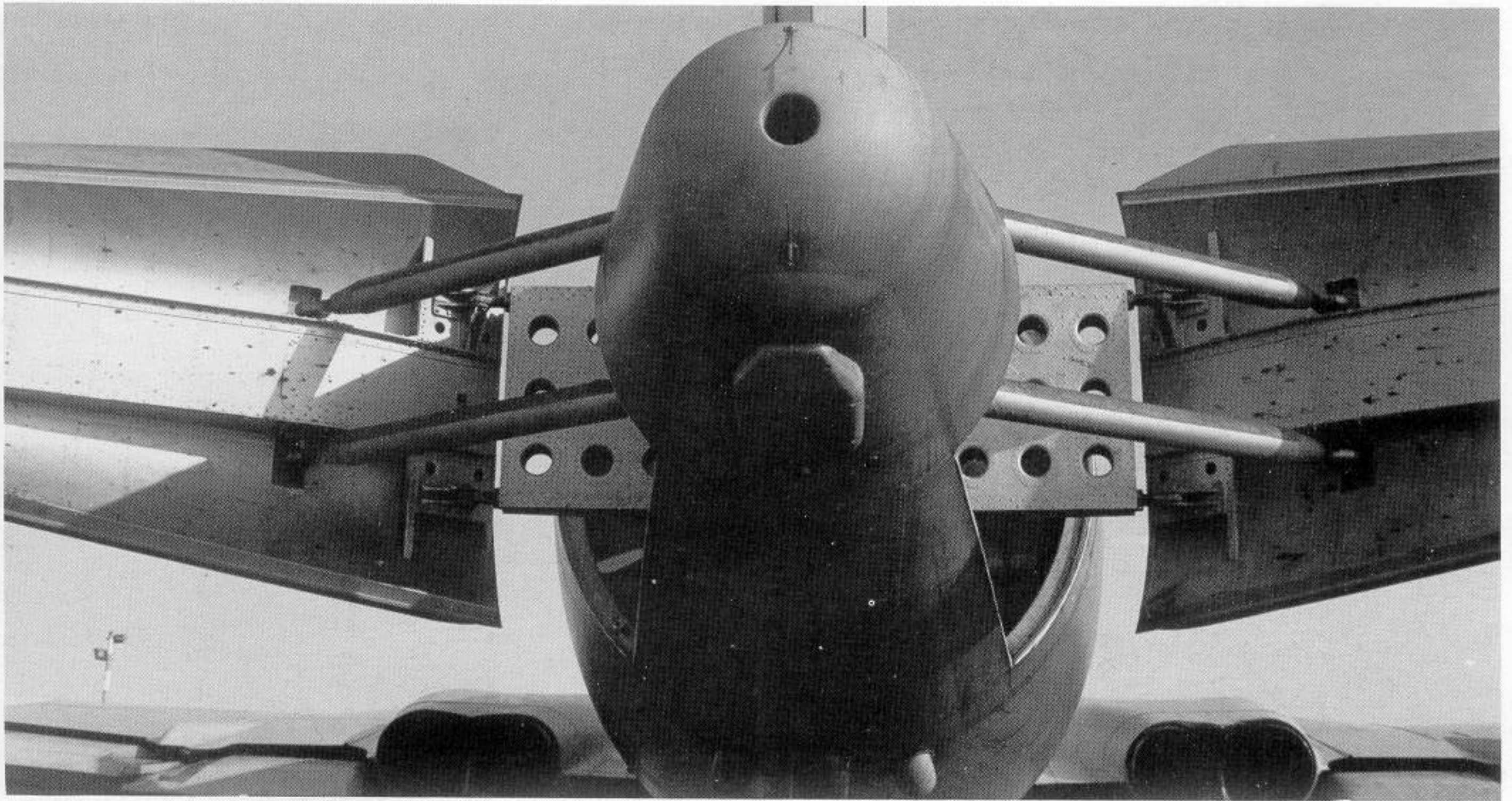












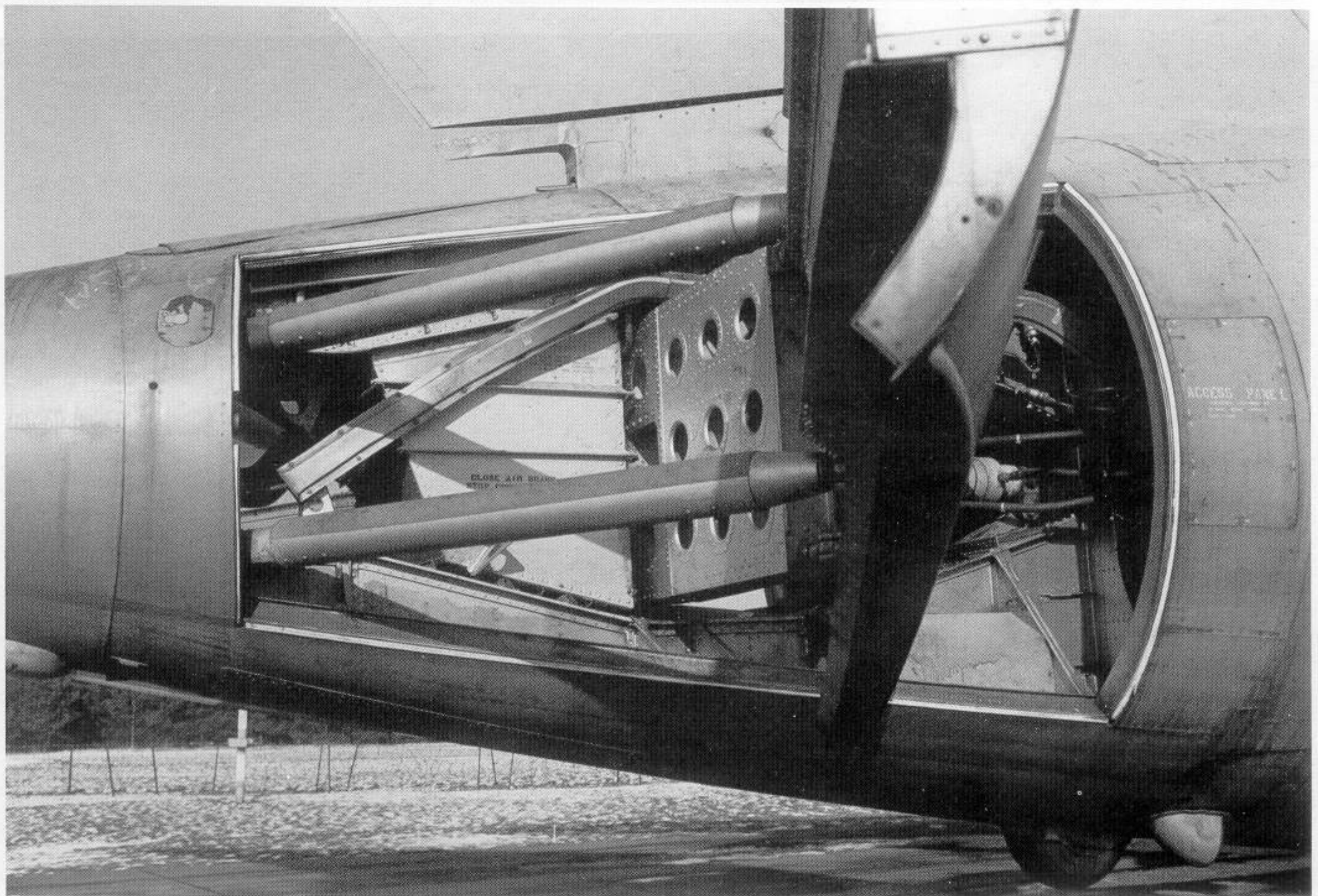
**Opposite page top:** The Victor's tail cone, showing the fuel jettison outlet (now redundant), static discharge wicks and, on the underside, the Omega navigation antenna fairing.

**Opposite page bottom left:** The parachute brake housing is located at the base of the fin trailing edge; the lower photograph shows the doors open, whilst in the upper illustration the retraction rod is just visible, beneath the rudder. Spare parachutes are stowed in No 4 Freight Bay.

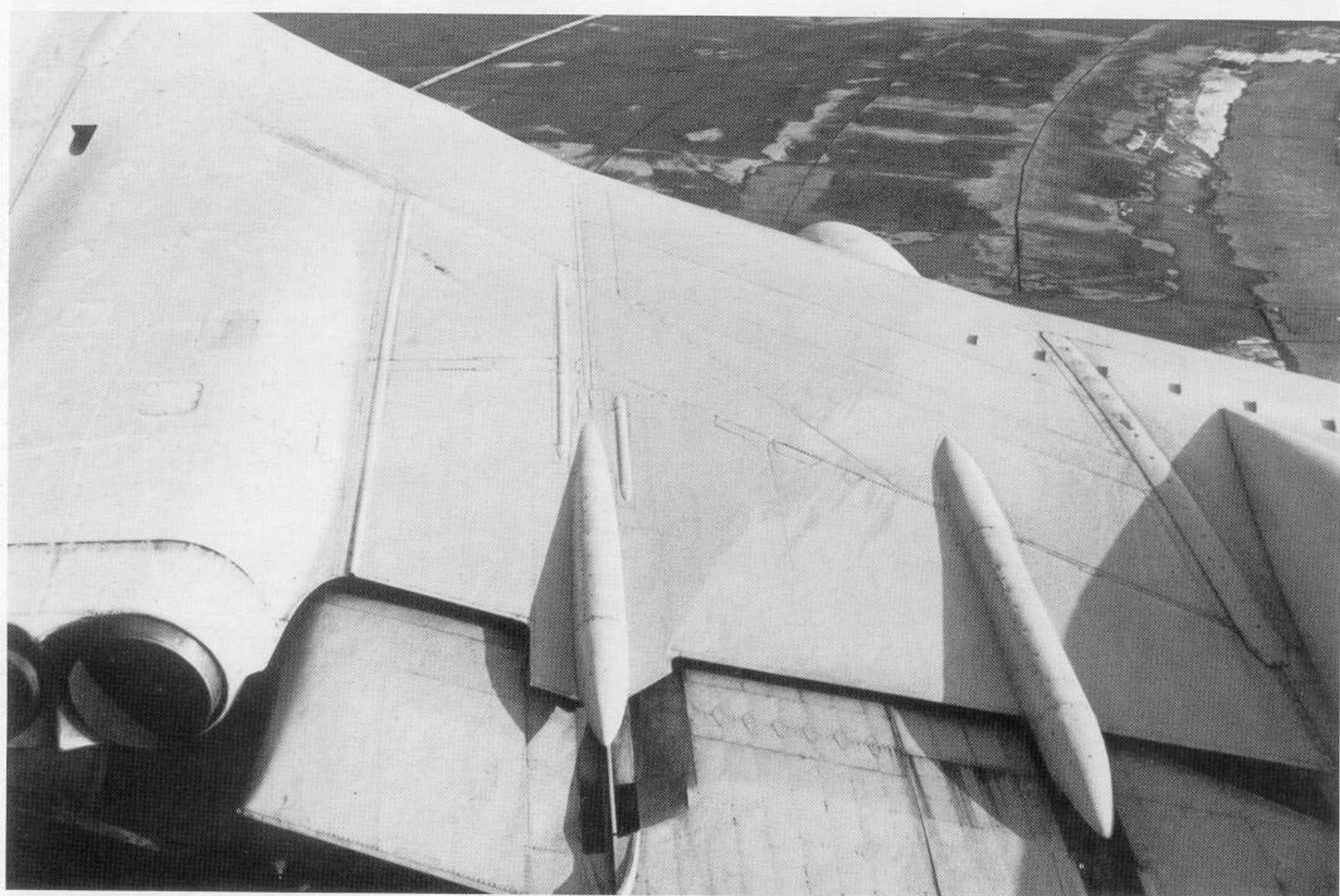
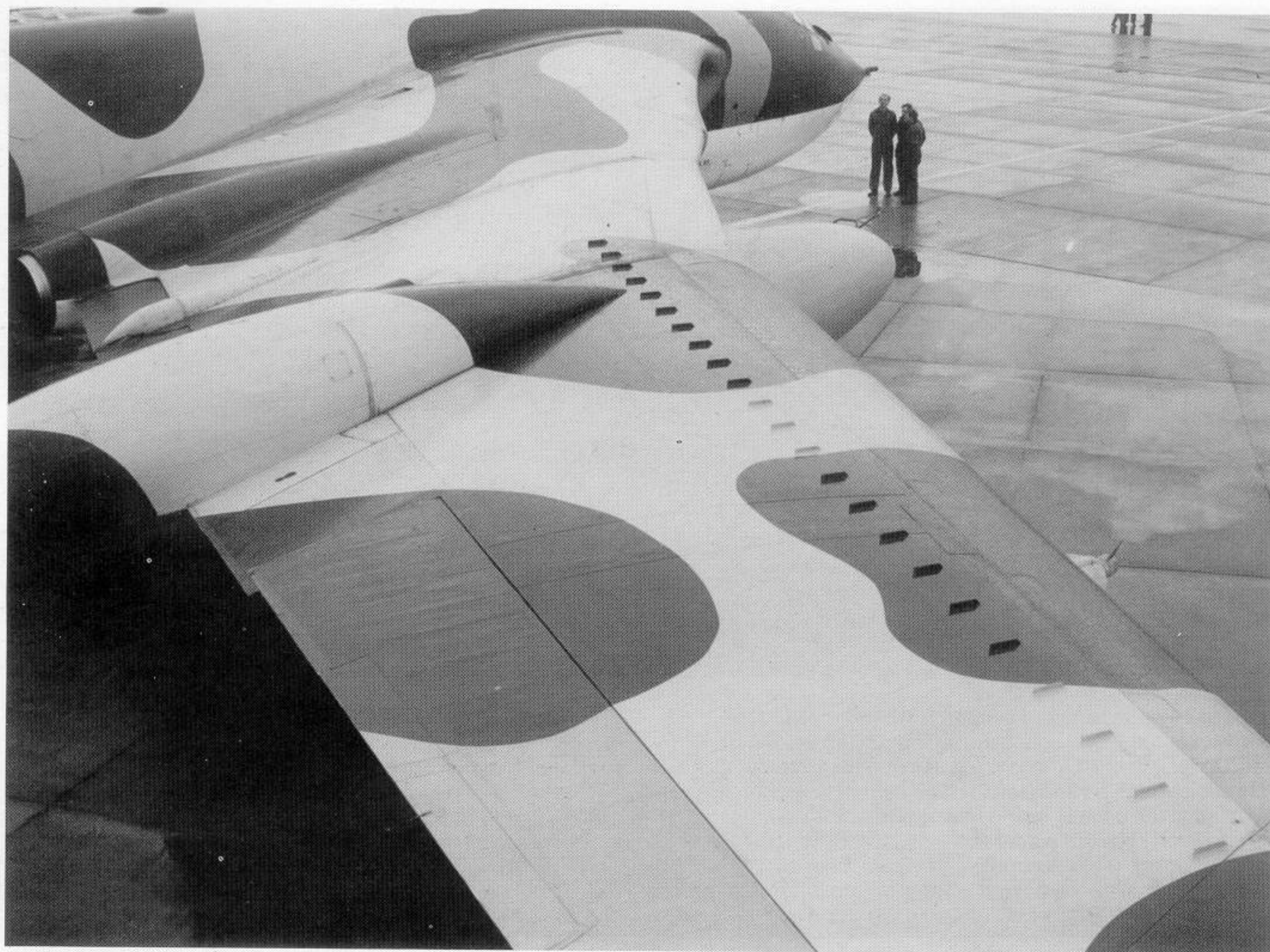
**Opposite page bottom right:** Compass alignment rod, blue

in colour, mounted immediately forward of the Omega fairing and used by groundcrew for compass swings.

**Above and below:** The Victor features side-mounted air brakes on the rear fuselage; they are shown deployed in these two illustrations. The interior finish is painted/sprayed aluminium, with grey-coloured non-slip compound applied to the horizontal support struts. The photographs on the opposite page show the brakes closed; note the prominent strakes top and bottom.









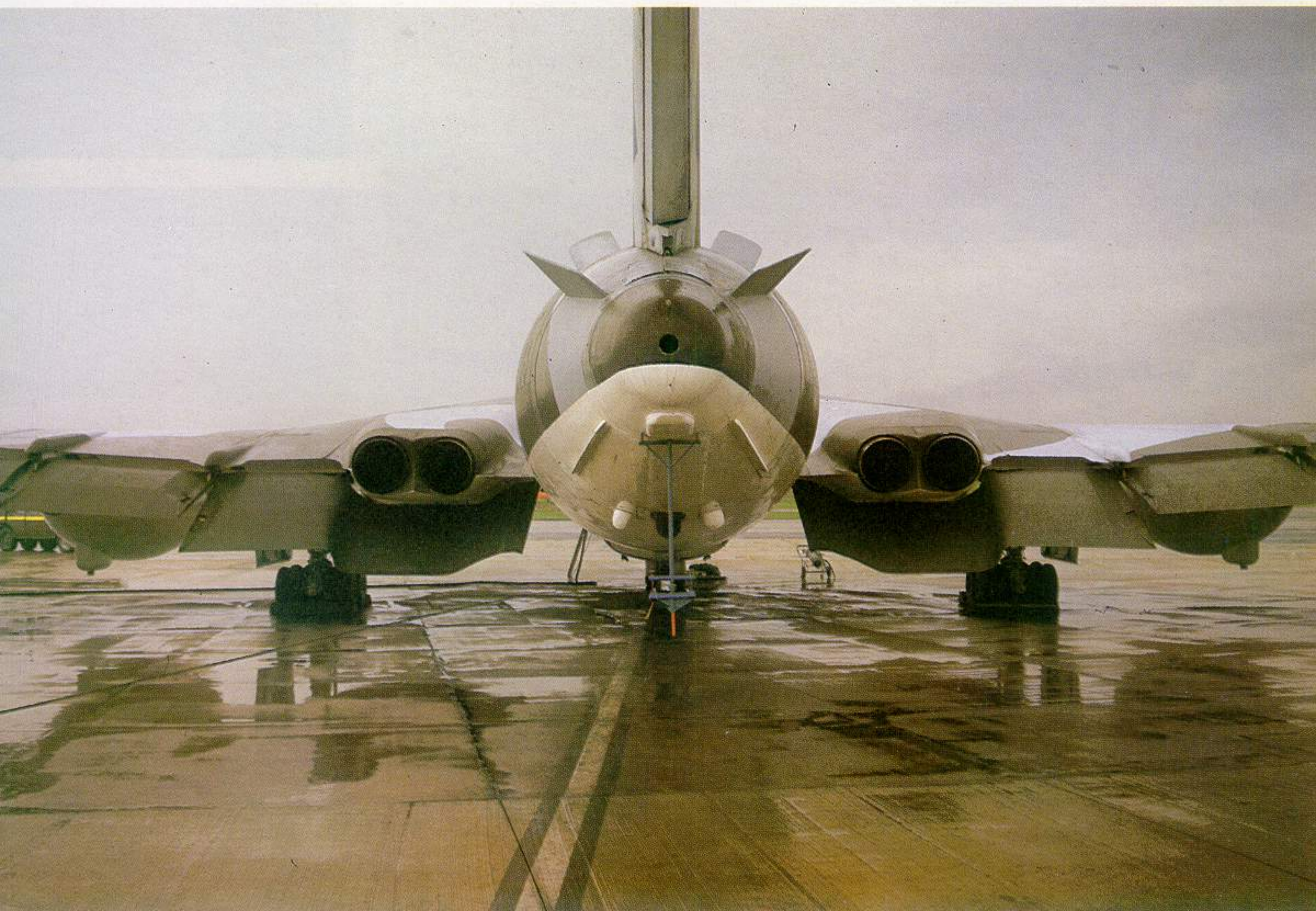


**Opposite page top:** A view over the starboard wing of XL189, the long row of vortex generators clearly visible. Note that the aileron is slightly elevated, and note also the interruption of the camouflage pattern around the inner flap and outer jetpipe.

**Opposite page bottom:** The top surface of the Victor K.2's inboard wing section (or 'inner plane'); the low angle of the sun has thrown the panel detail into sharp relief on this Hemp-finished machine. The wing stiffeners and flap track fairings are very evident, and note also the air bleed outlet in the top left-hand corner of the photograph.

**Above:** XL231 (No 232 OCU) is readied for flight. The refuelling hose is connected, and groundcrewmen, wearing ear defenders and high-visibility armbands, are in attendance. The last three digits of the aircraft's serial number appear in dayglo orange on the forward web of the crew entry door, whilst below stands the Victor's simple flight deck access ladder.

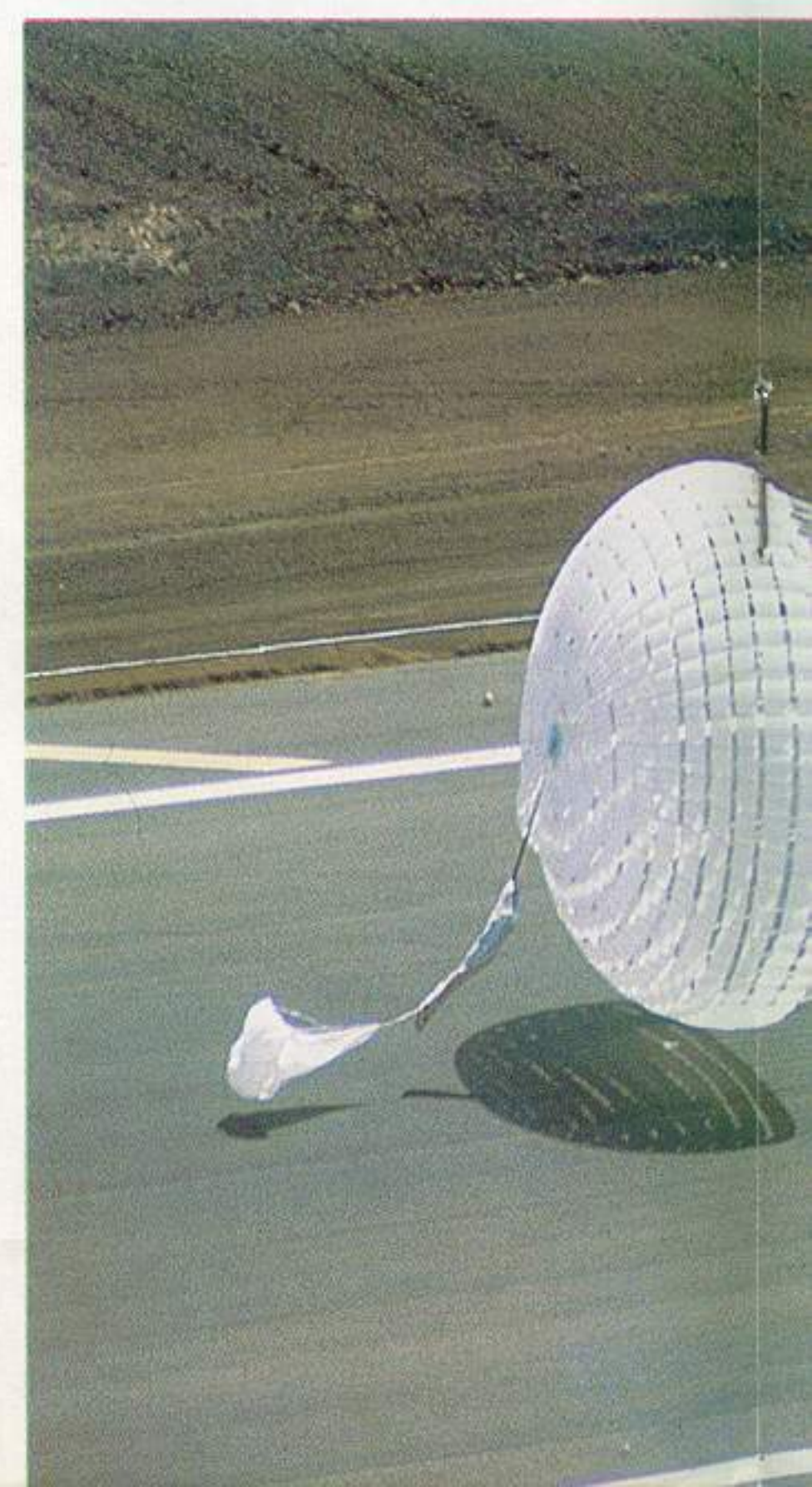
**Below:** Rear view of XL189, showing the Victor's massive flaps. These are four in number, the larger inboard pair incorporating a fairing to enclose the jetpipes when retracted.







Above: The port wing of XL231, showing the bulky overwing pods. The wingtip dayglo orange stripes have weathered to a subdued colour, contrasting with the markings on the refuelling pods.  
 Below: Starboard nose detail of XL192 (No 57 Squadron). The Hemp/Light Aircraft Grey colour boundaries are quite complex in this region, especially inside the main intake, where the rim is in Hemp, the forward part of the 'roof' is Grey and the interior proper white!  
 Right, top: XL188, No 55 Squadron, poses for the camera against a Marham winter sunset.  
 Right: Tails of two Victors, showing the camouflage 'wrap-round' beneath the tailplane.  
 Far right: Victors with non-matching wing tanks are commonplace. The marking on the Hemp-finished tank on this aircraft is a 'zap' originating with No 9 Squadron.  
 Right, bottom: A No 55 Squadron Victor lands at Wideawake, Ascension Island, its air brakes open and its braking parachute deployed. *Chf Tech Steve Millard*











**Above:** Starboard refuelling pod, showing the high-visibility markings and complexity of stencilling present.

**Below:** Detailed view of the Victor K.2's Mk 17B Hose Drum Unit (HDU), showing the 'ready' lights ranged either side of the retractable fairing and the open fairing doors.

**Opposite page top left:** Top surface of the starboard main intake. Note the angled wing fence inboard of the intake and, running across the wing behind this, the yellow walkway line

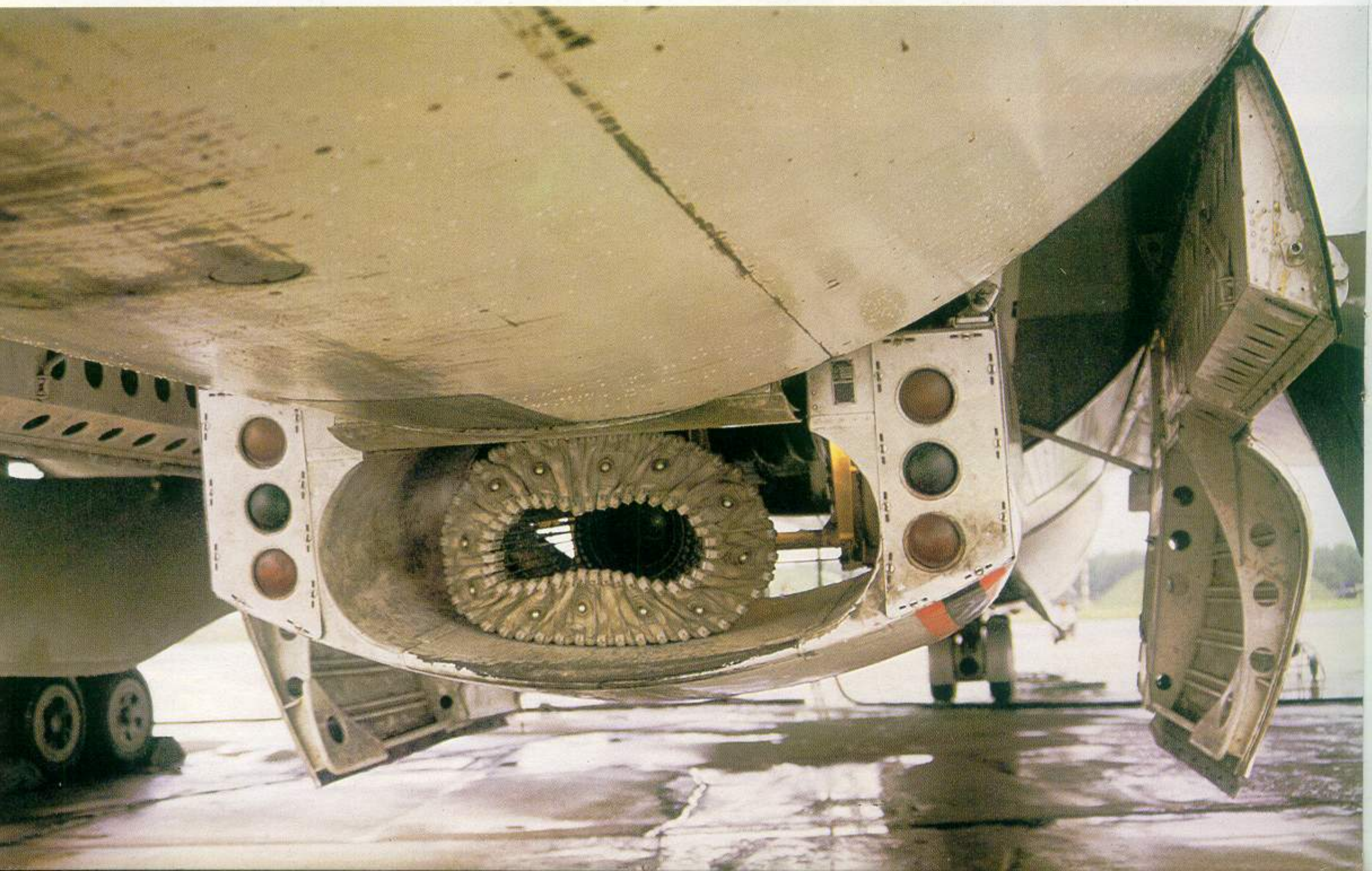
with red hatching along the outer edge.

**Opposite page top right:** The port intake of a camouflaged Victor. The prominent central fairing is the anti-icing overshoe.

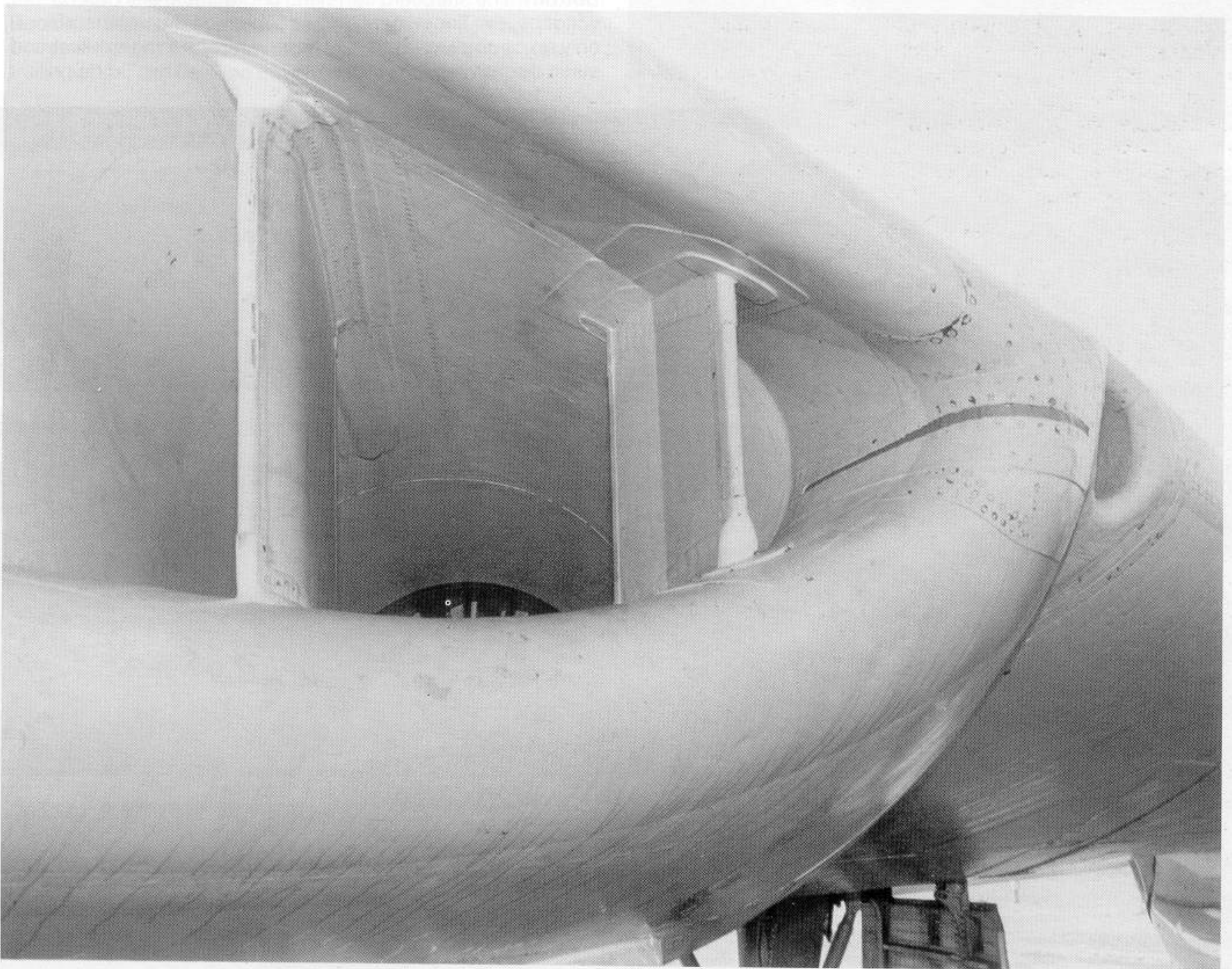
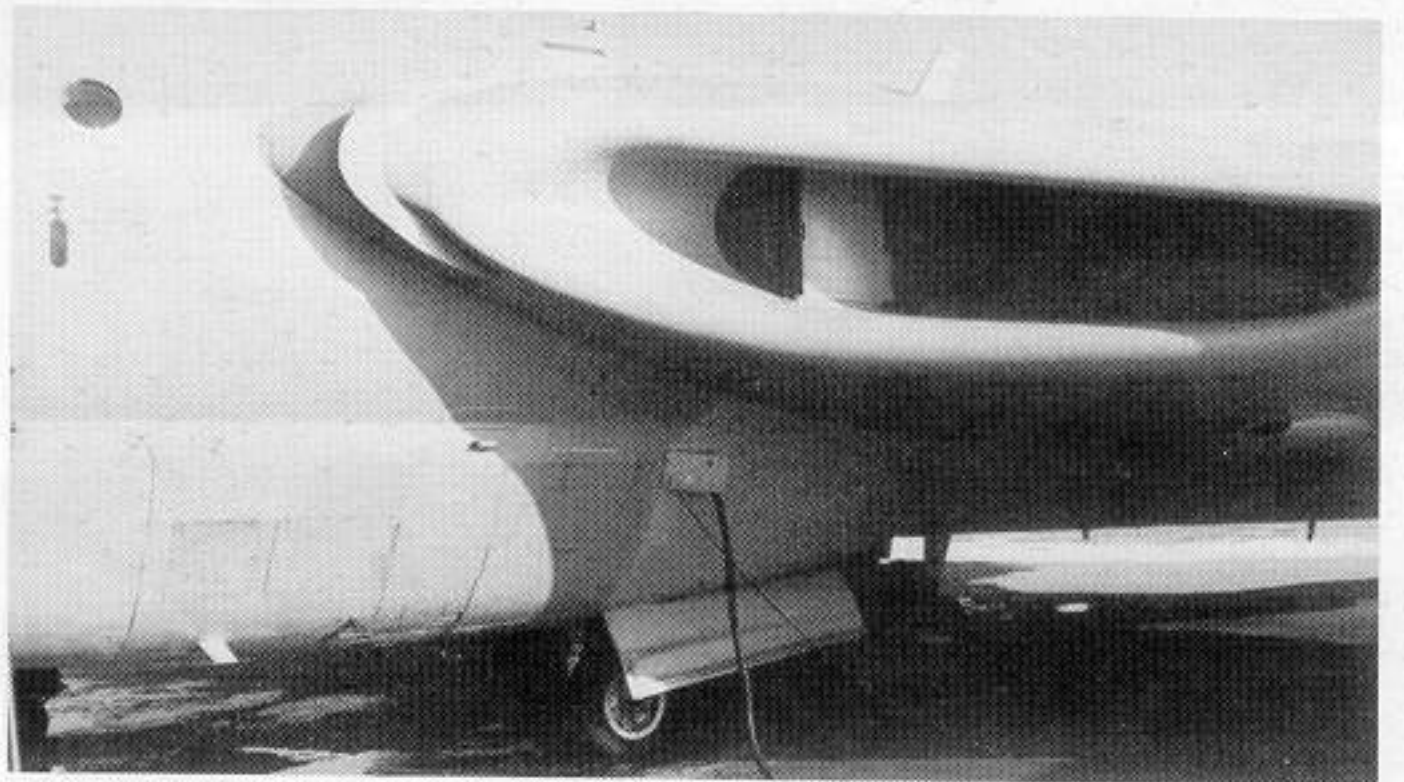
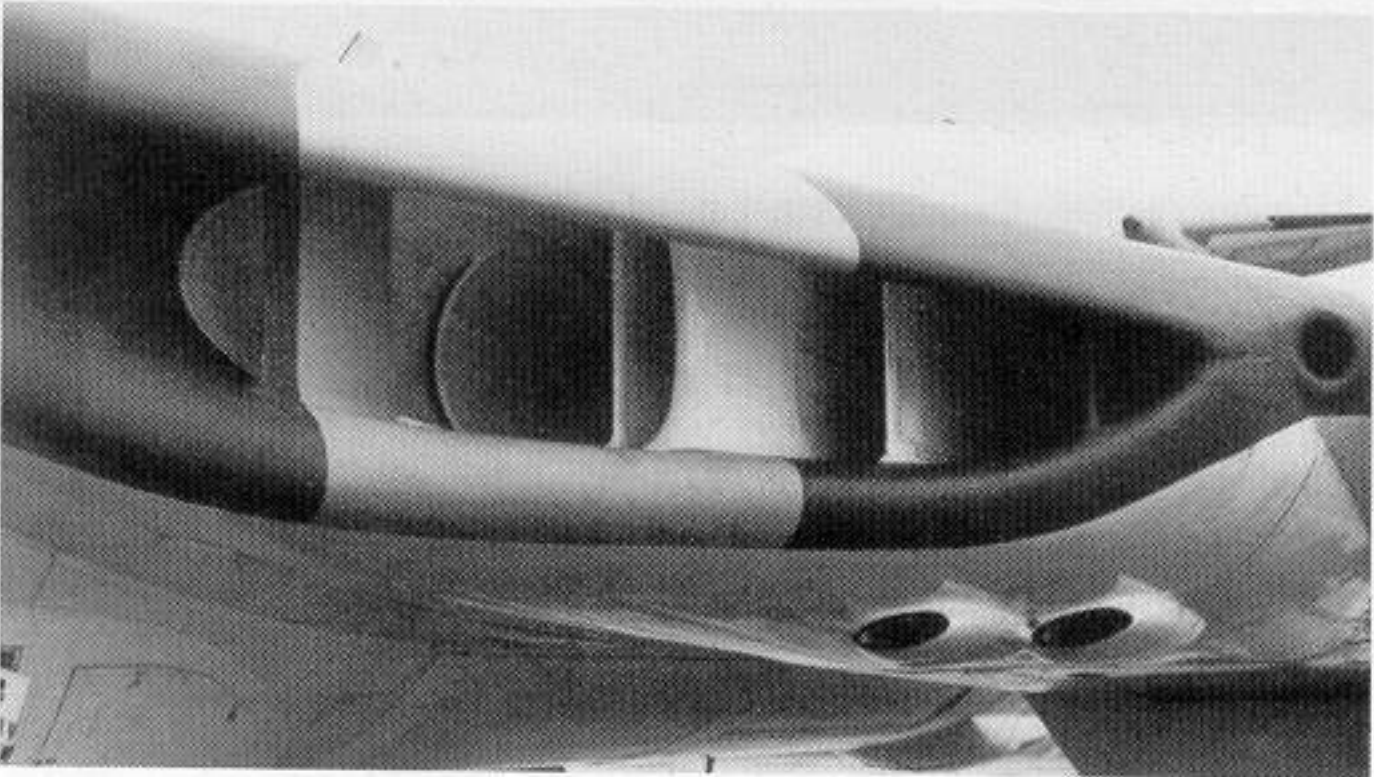
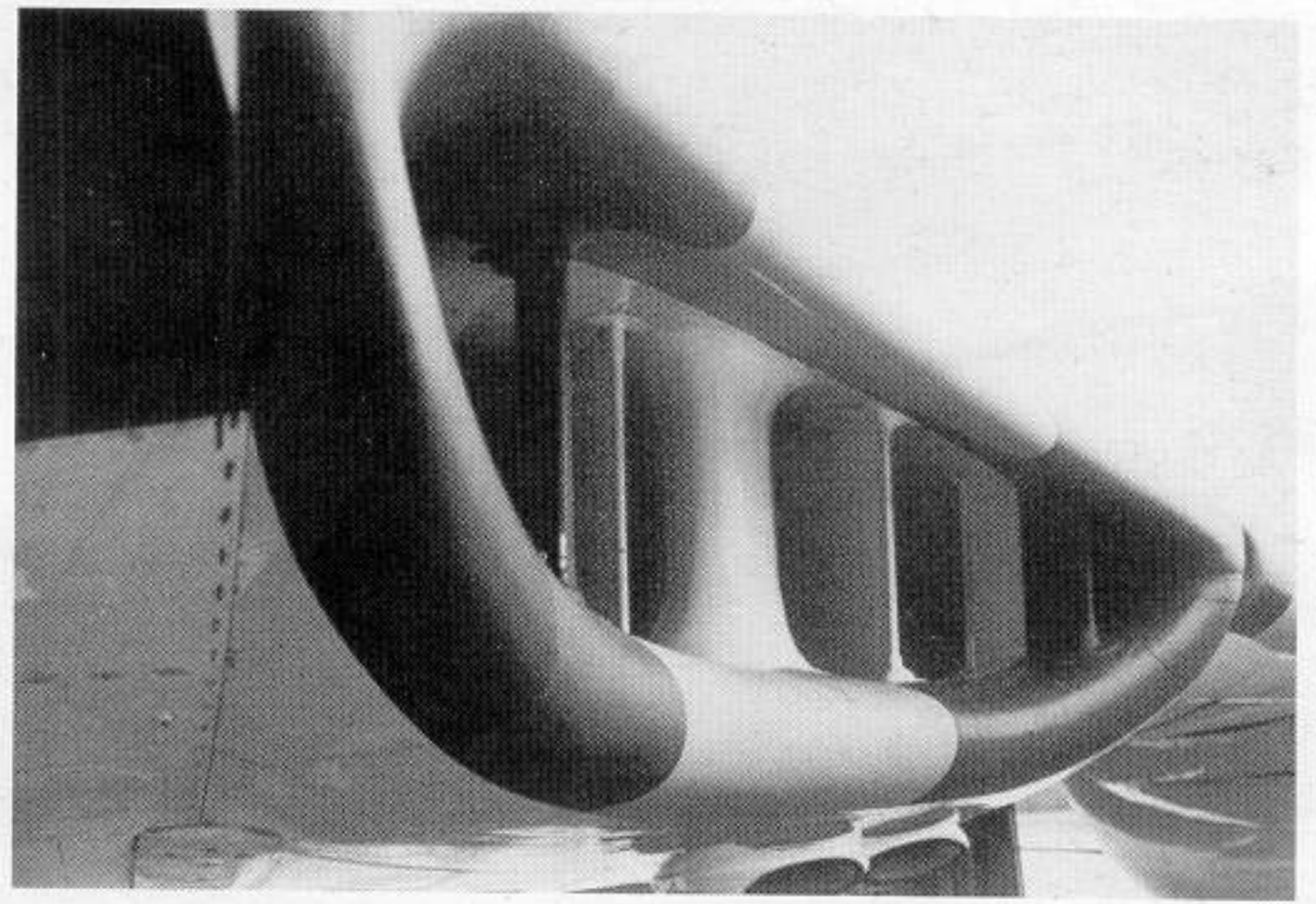
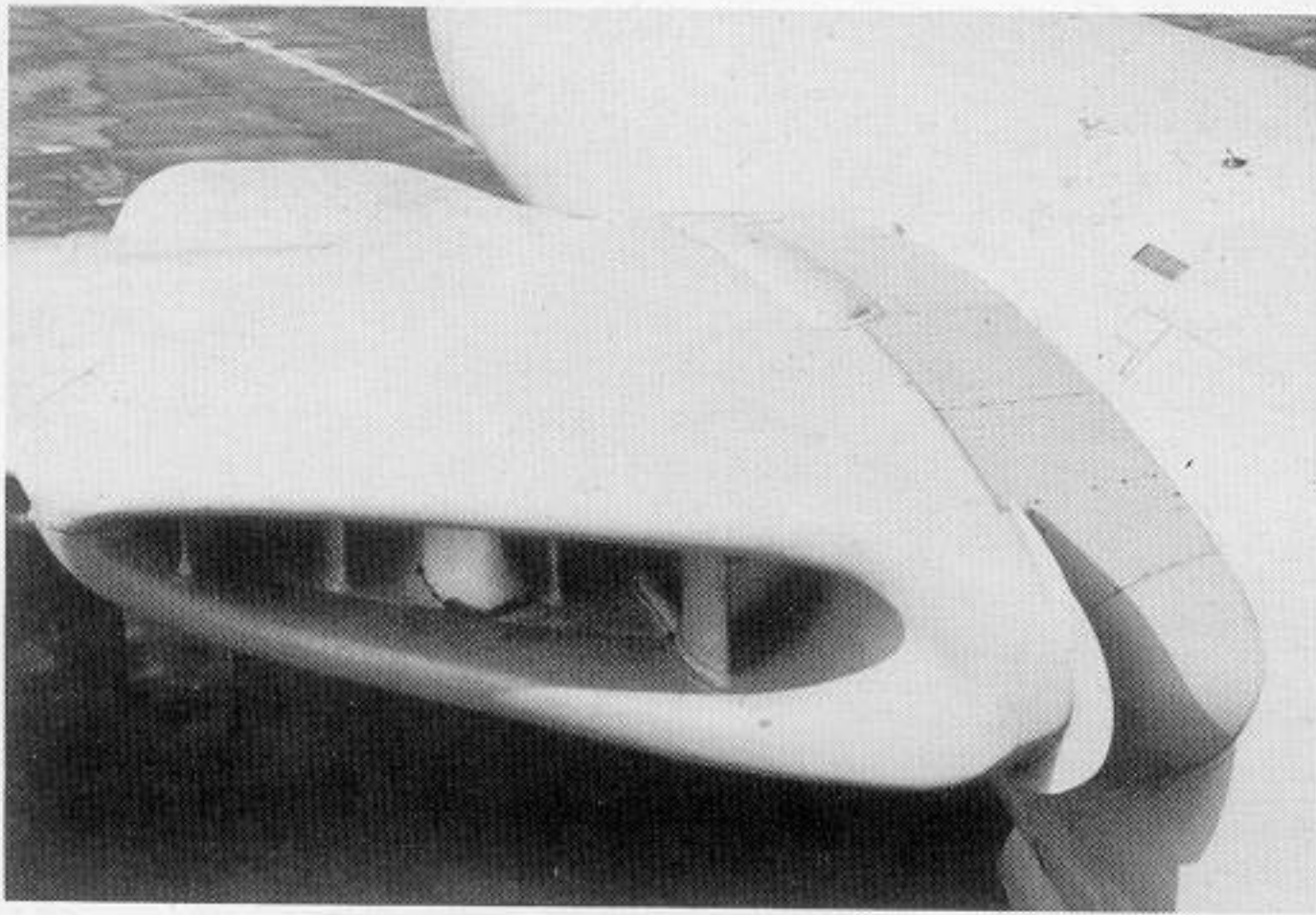
**Opposite page centre left:** Each individual intake duct has a pair of splitter plates; only the two outer plates of each pair of ducts carry the camouflage colours on this aircraft.

**Opposite page centre right:** Port intake with blank fitted.

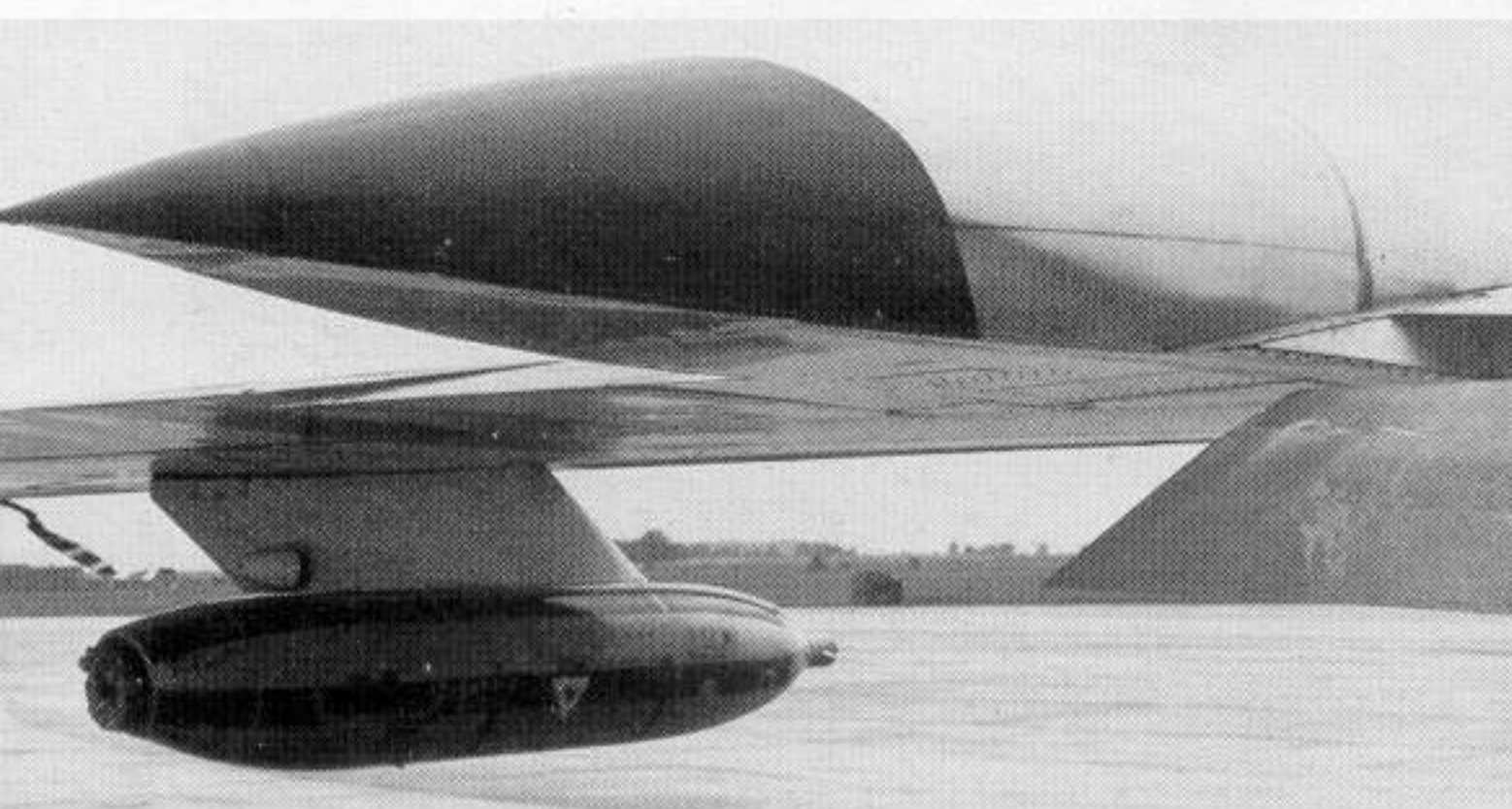
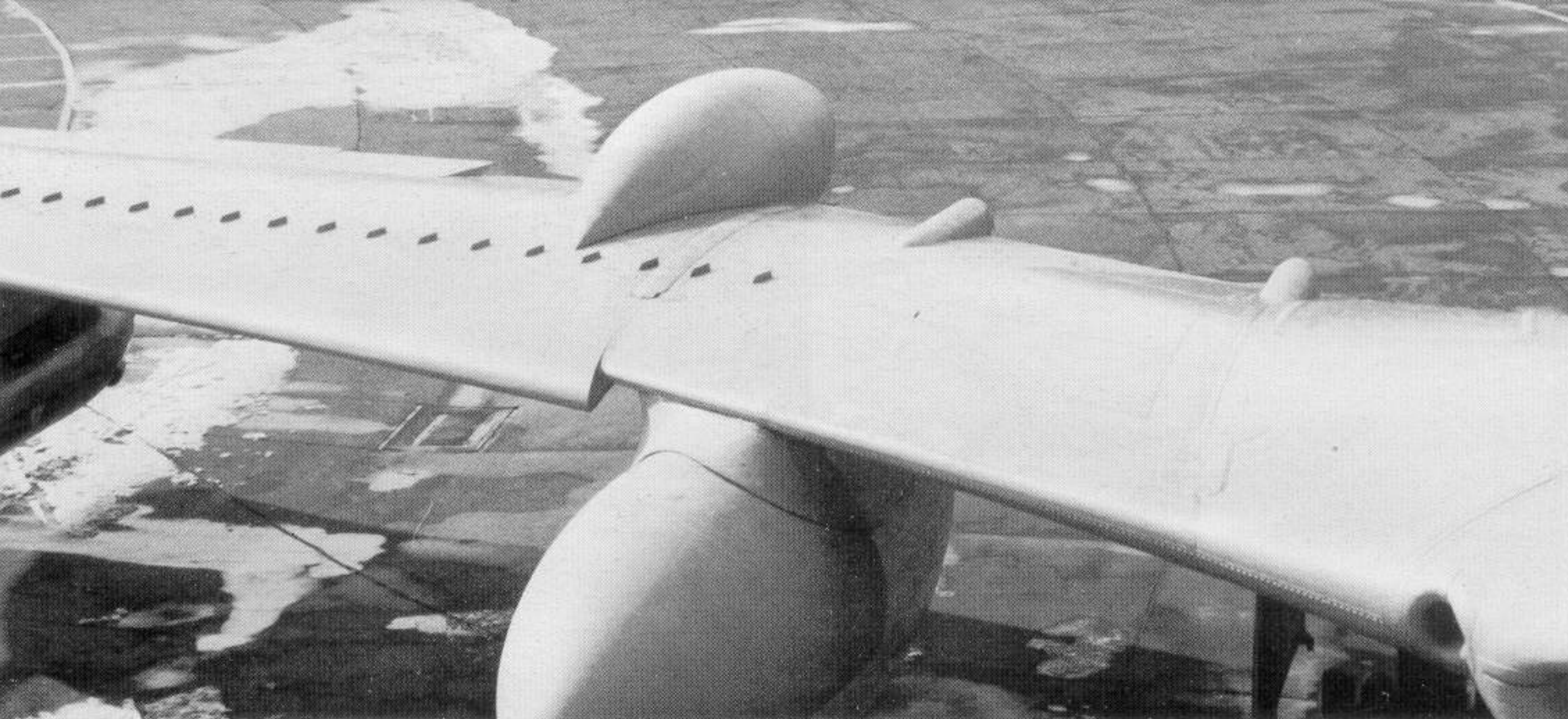
**Opposite page bottom:** Detail view of outer port engine duct.









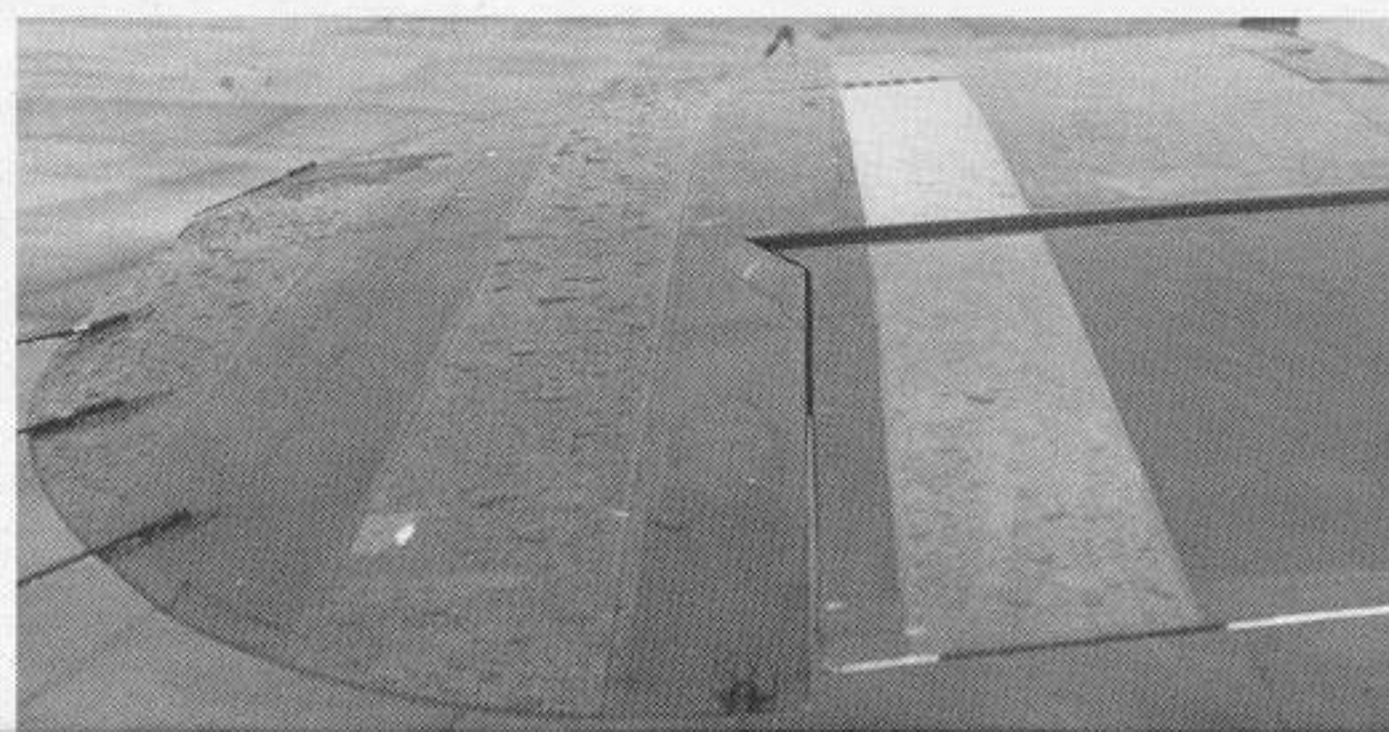
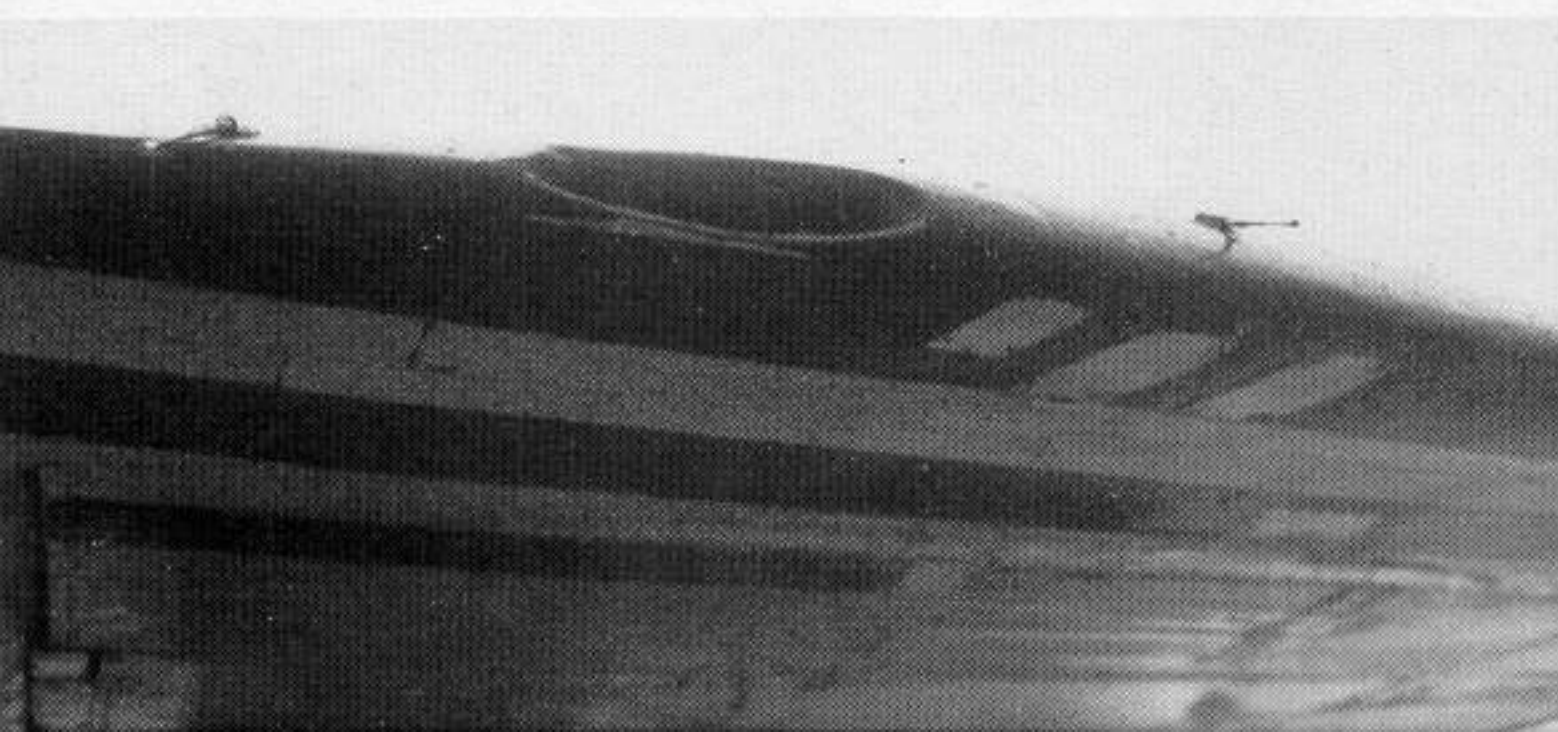
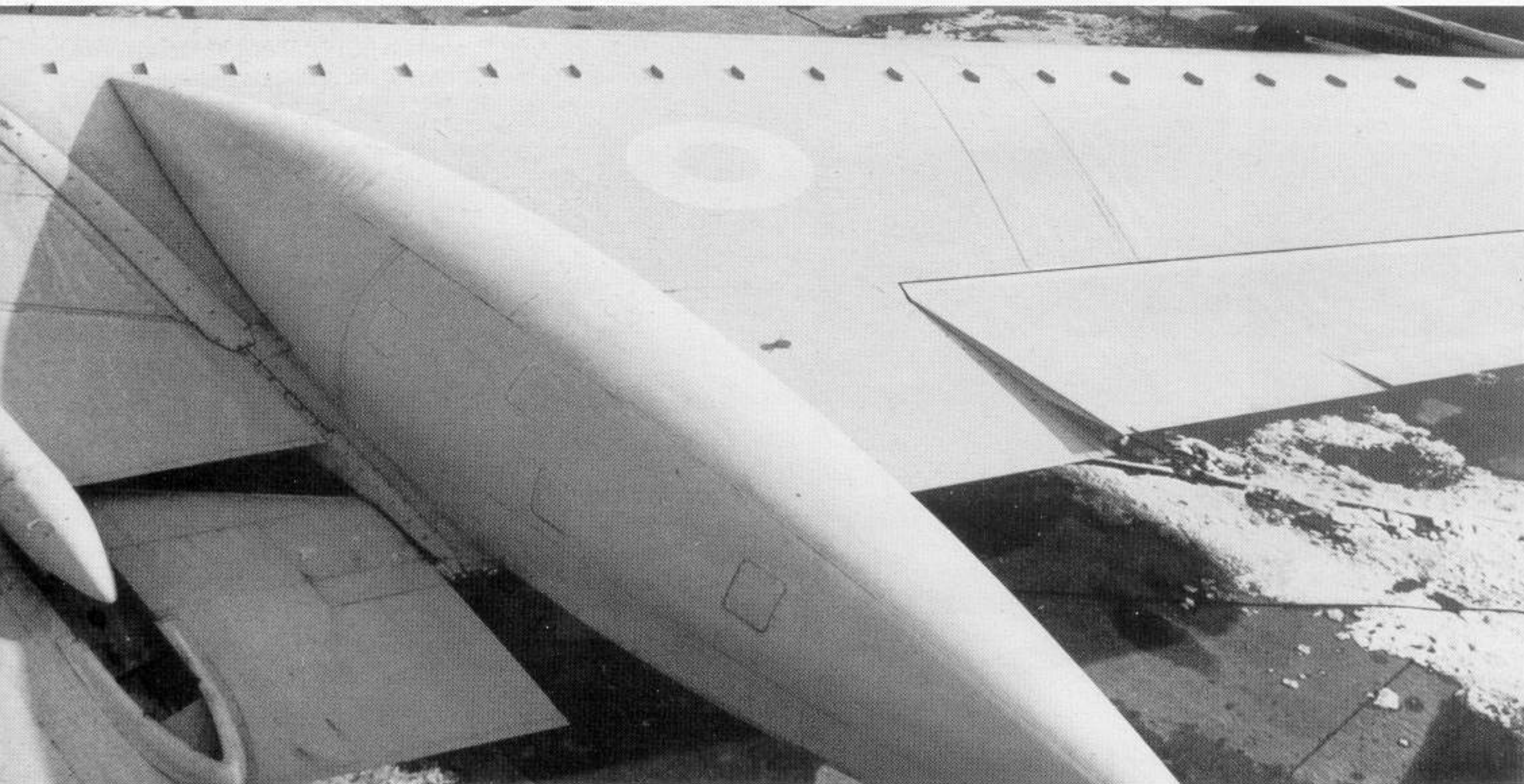


**Above:** A view over the starboard wing. The drooped leading-edge flaps ('nose flaps') are fixed in position.

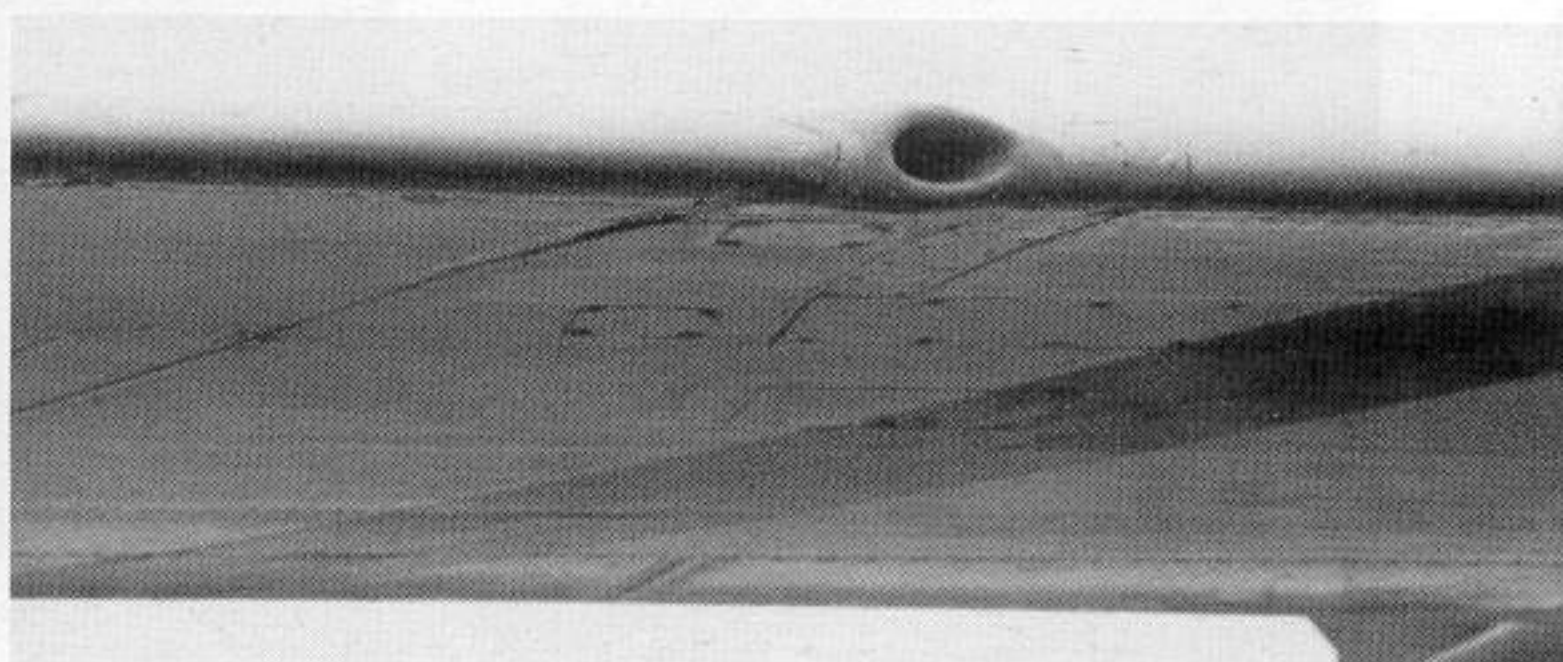
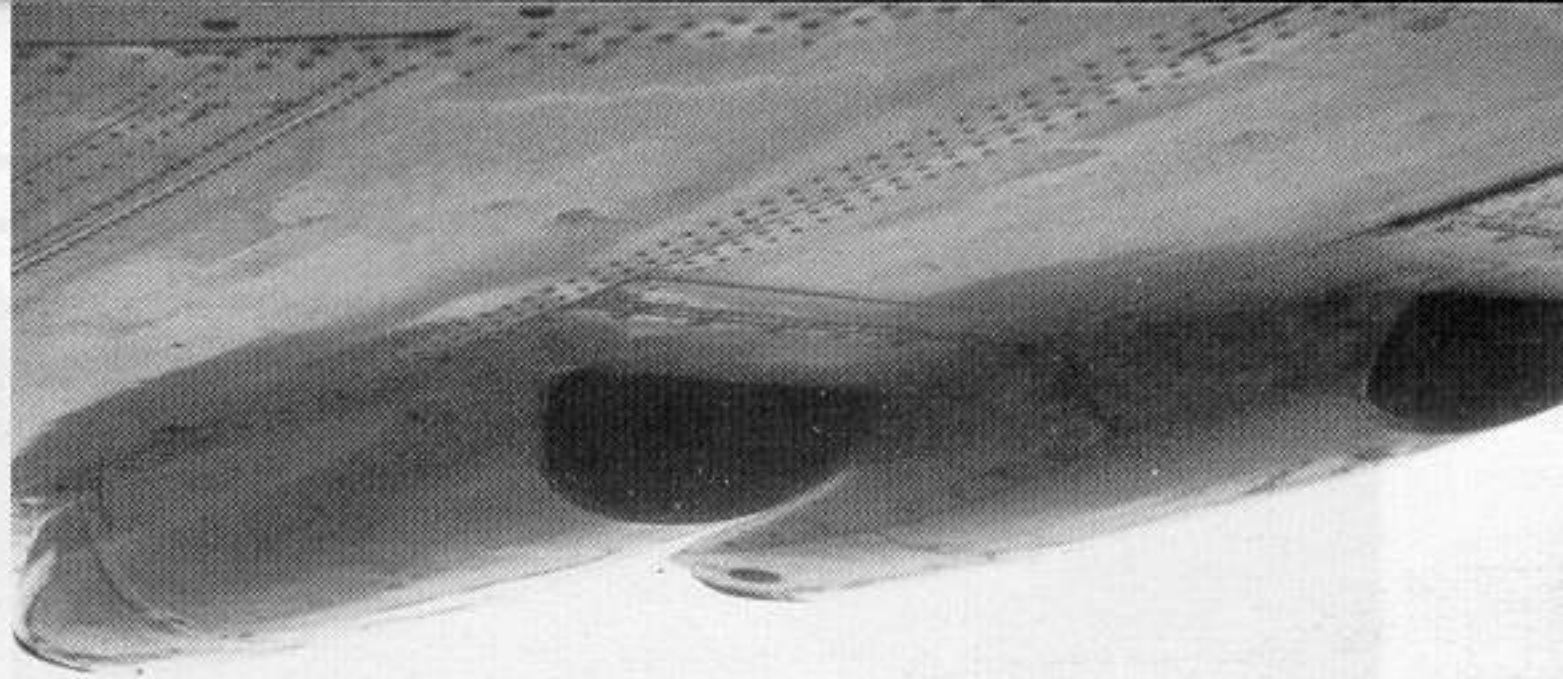
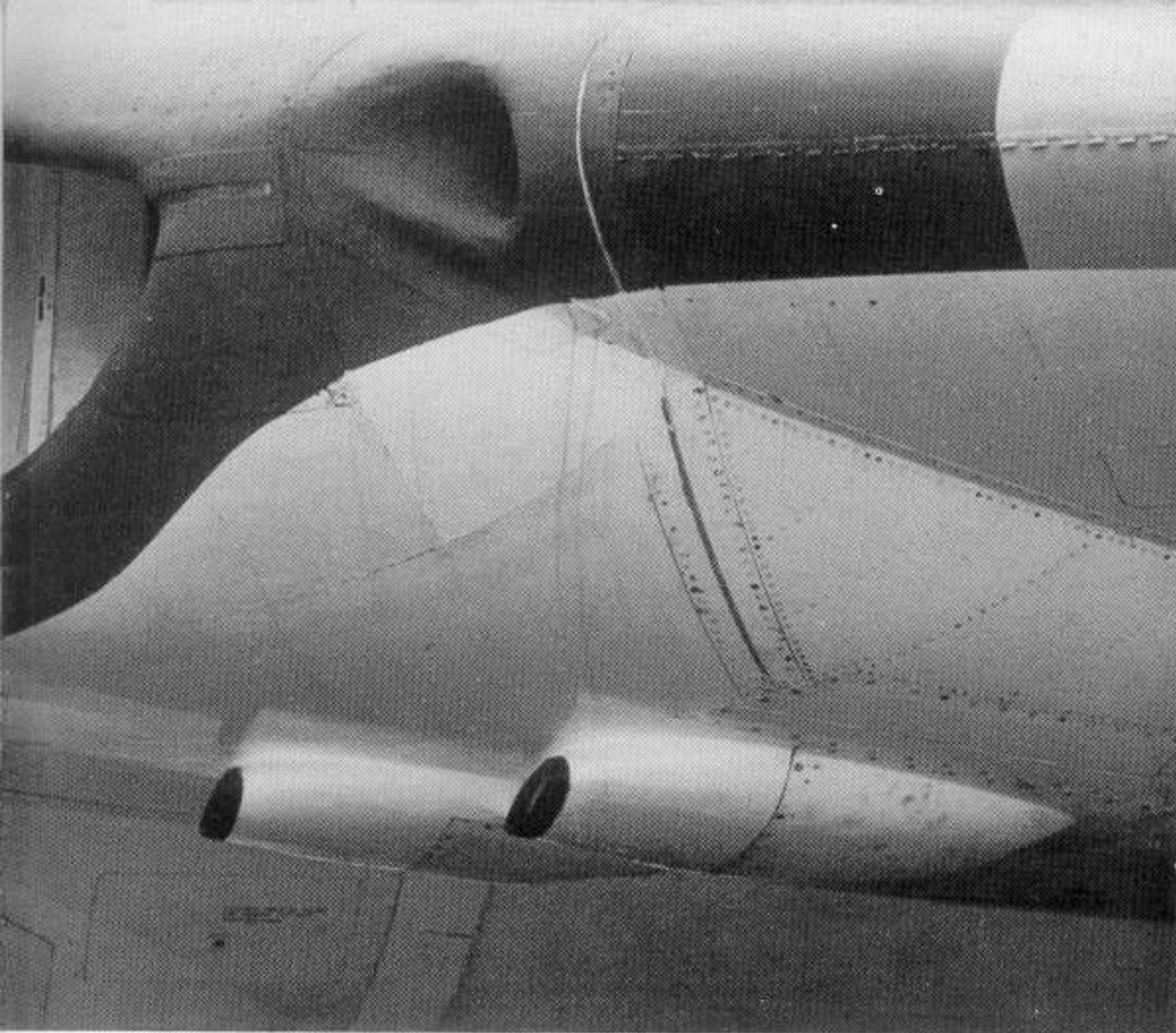
**Left:** The distinctive aerodynamic fairings, referred to as 'overwing pods', 'Whitcombe pods' or, more generally, 'Kuchemann carrots', carried 'window' launchers during the Victor's earlier careers as Blue Steel platforms (B.2) and strategic reconnaissance aircraft (SR.2).

**Below:** Outer mainplane, showing the position of the upperwing roundel and the chordwise reinforcing strips. It is customary for Victors to be parked with both ailerons slightly elevated ('uprigged') since this reduces fatigue.

**Bottom:** The starboard (left-hand photograph) and port wingtips; the fluorescent stripes appear on the upper surfaces only on camouflaged aircraft. Note wing anti-icing exhaust and static dischargers.







**Above left:** Wing anti-icing intake on leading edge, with paired constant-speed drive unit (CSDU) oil cooler intakes beneath the main engine intake duct.

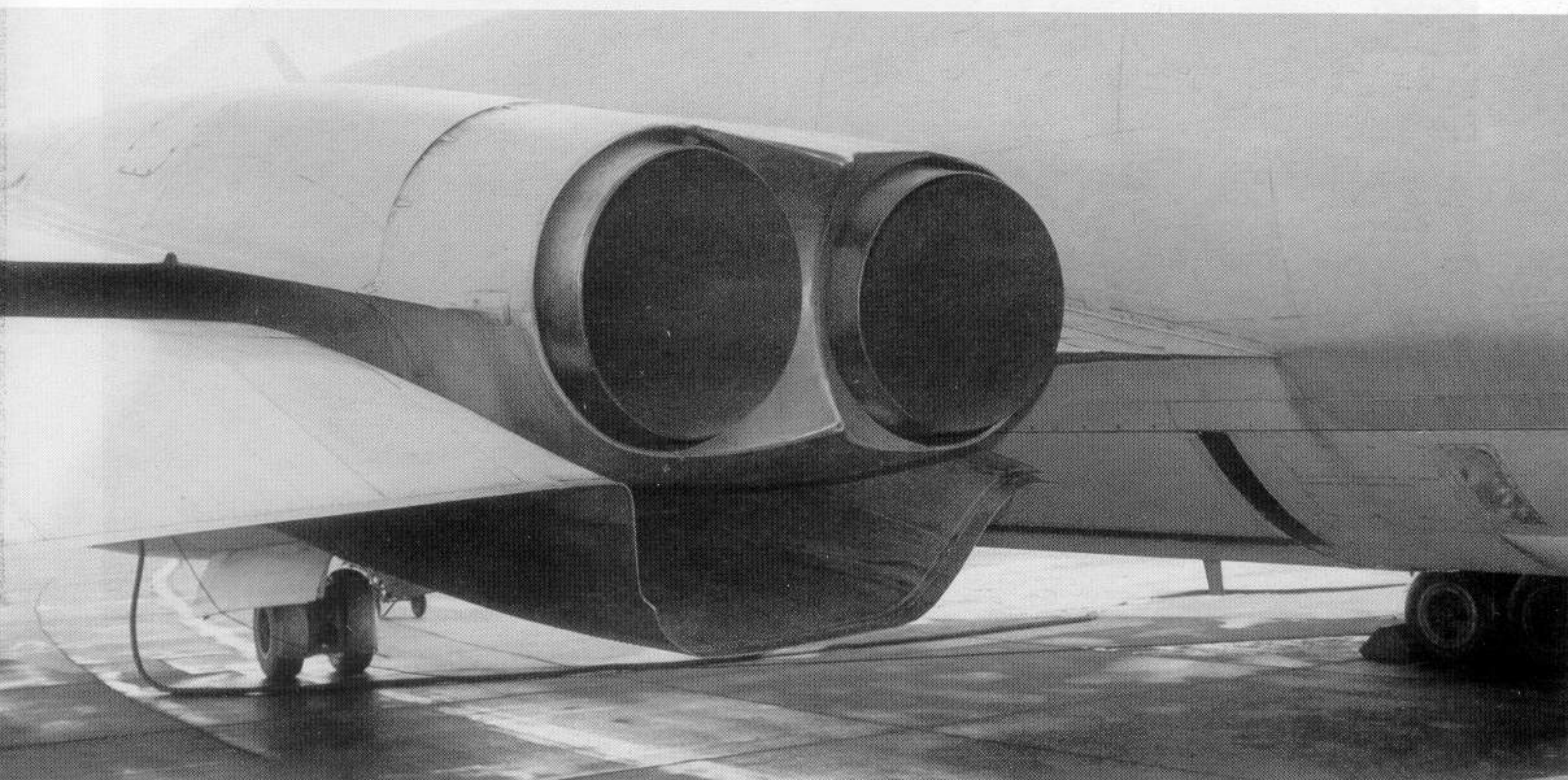
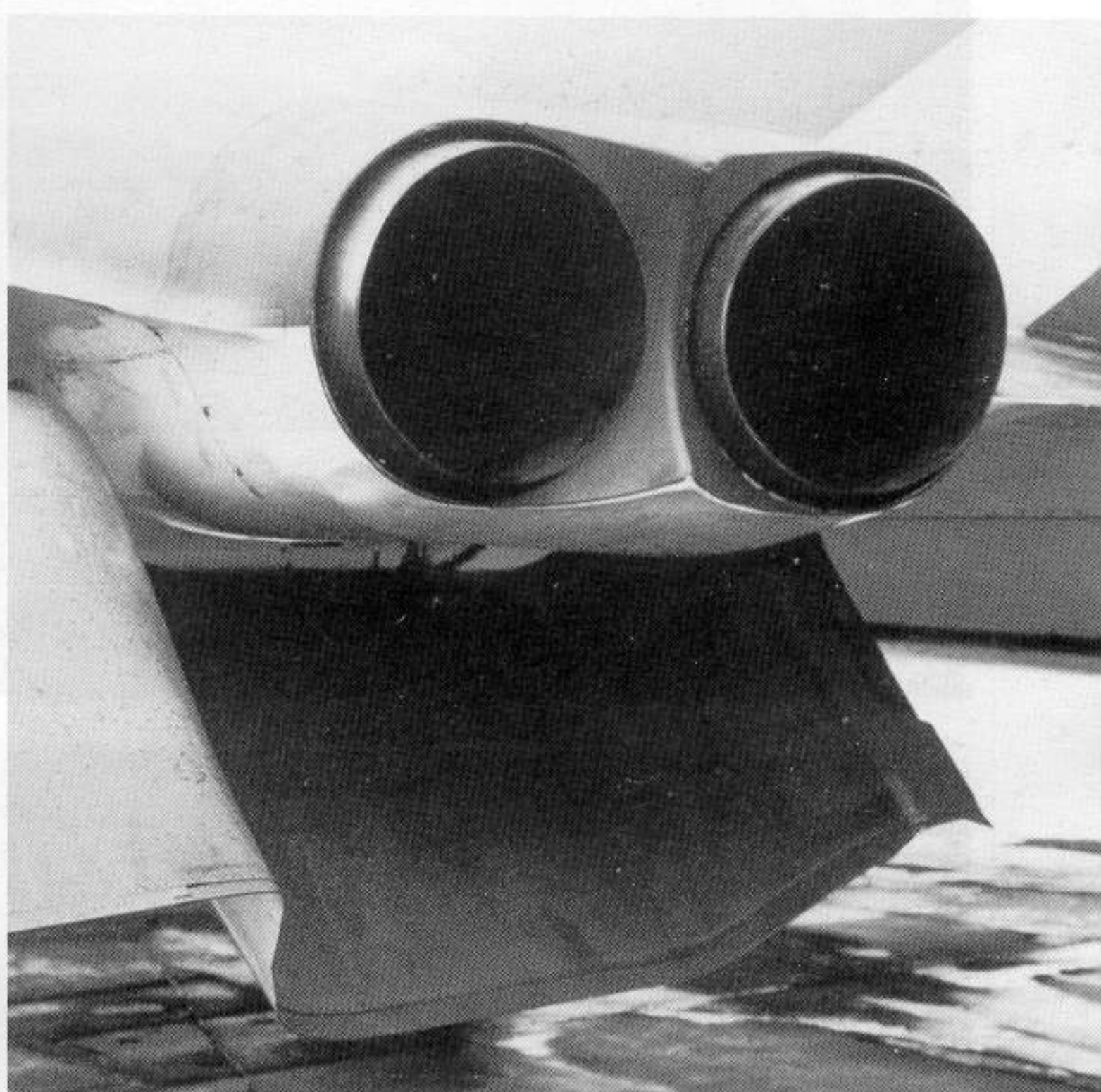
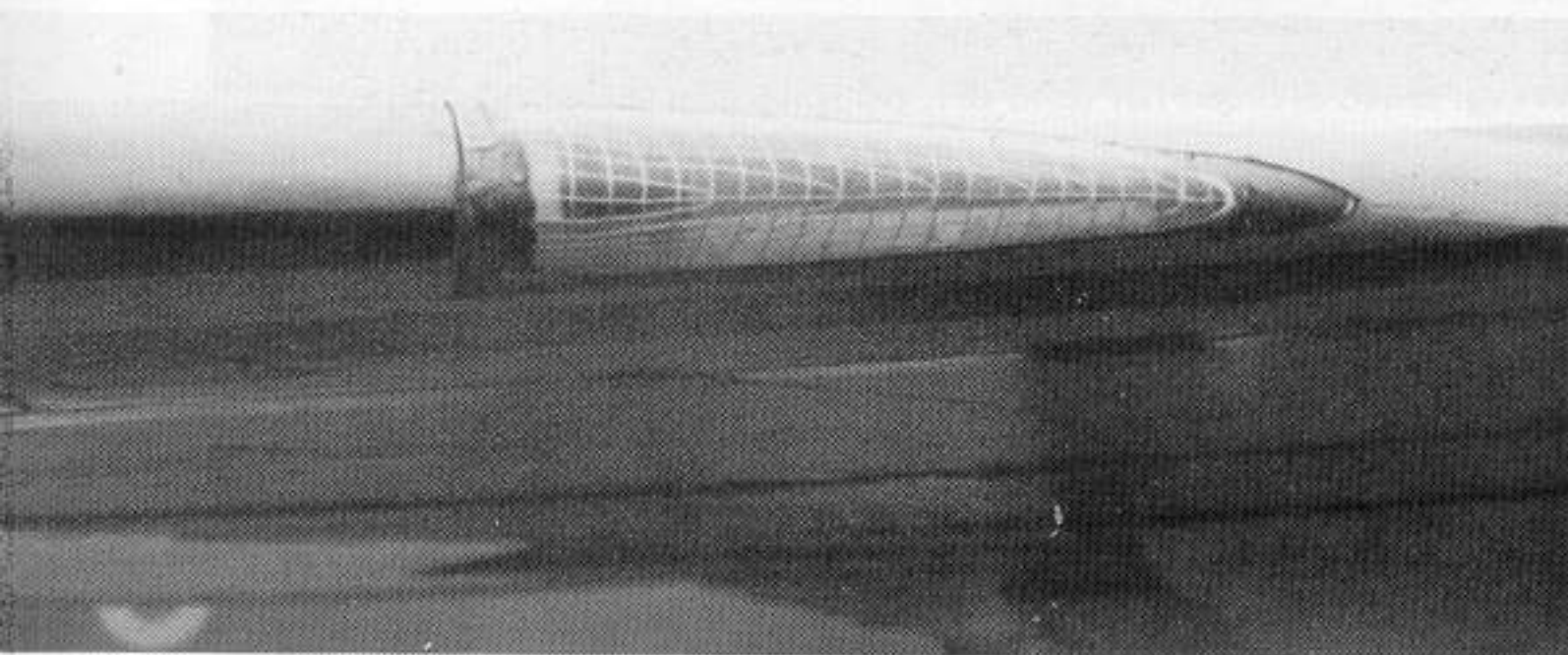
**Top right:** Rear view of starboard CSDU oil cooler fairings, showing outlets.

**Above right:** Aileron PFCU cooling intake, starboard wing.

**Below:** Starboard wingtip navigation light, showing wire-reinforced construction of the transparent cover.

**Right:** The twin jetpipes for the port-side Conway engines; the thrust lines of the pipes are canted slightly towards each other. This photograph also illustrates the trailing-edge flaps in the 'down' configuration.

**Bottom:** The inner starboard flap at its take-off setting. To the extreme right of the photograph, below the line of the wing trailing edge, can be seen the port HDU standby light.

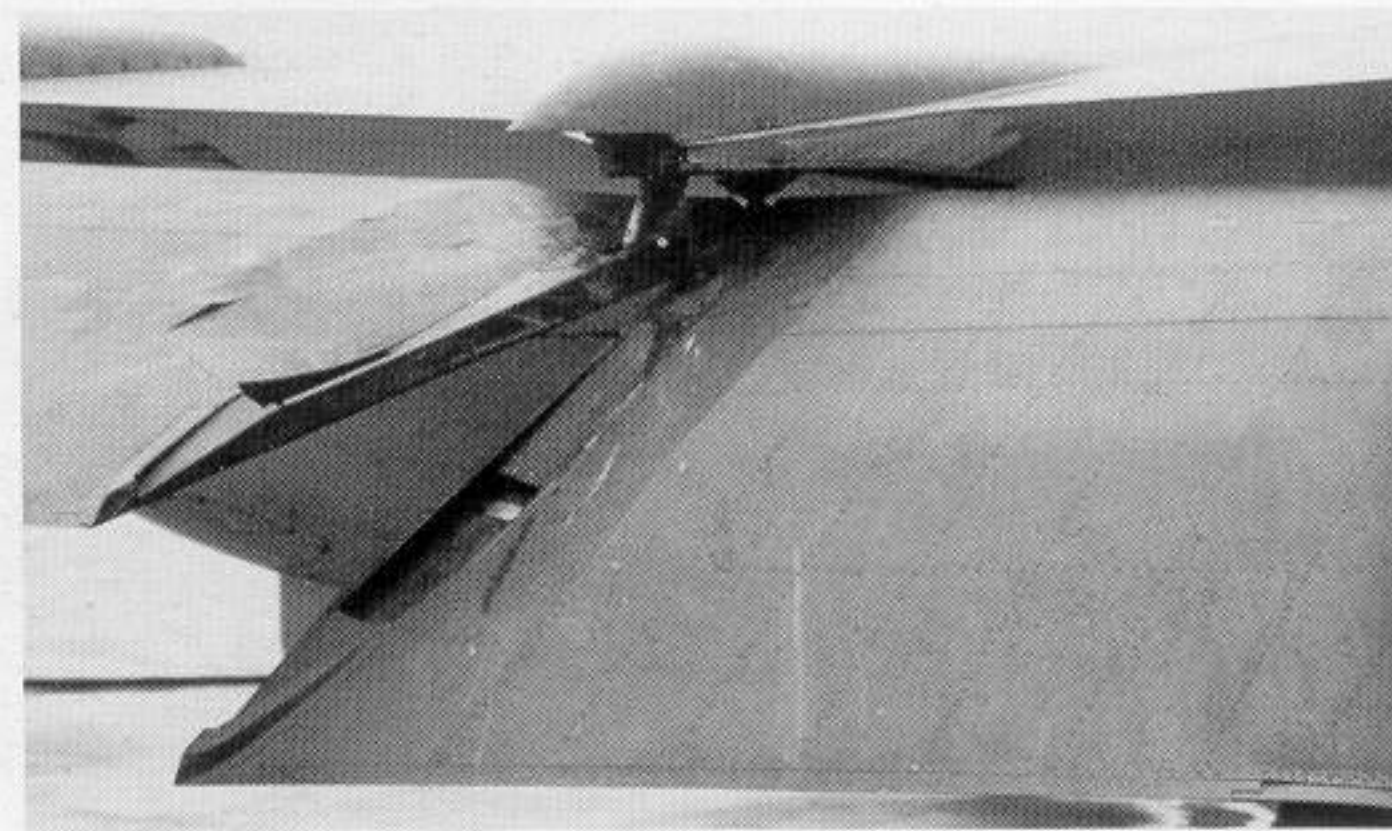
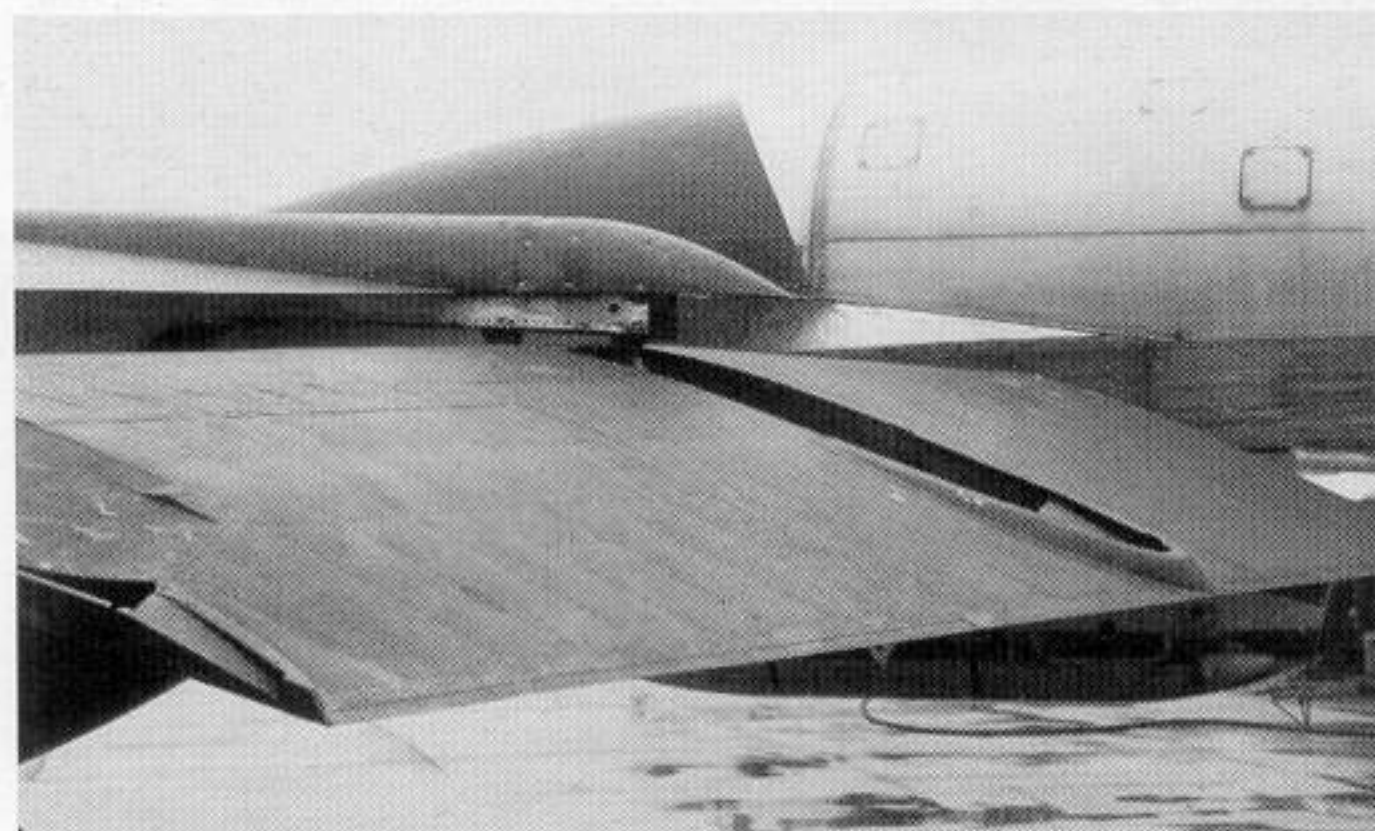
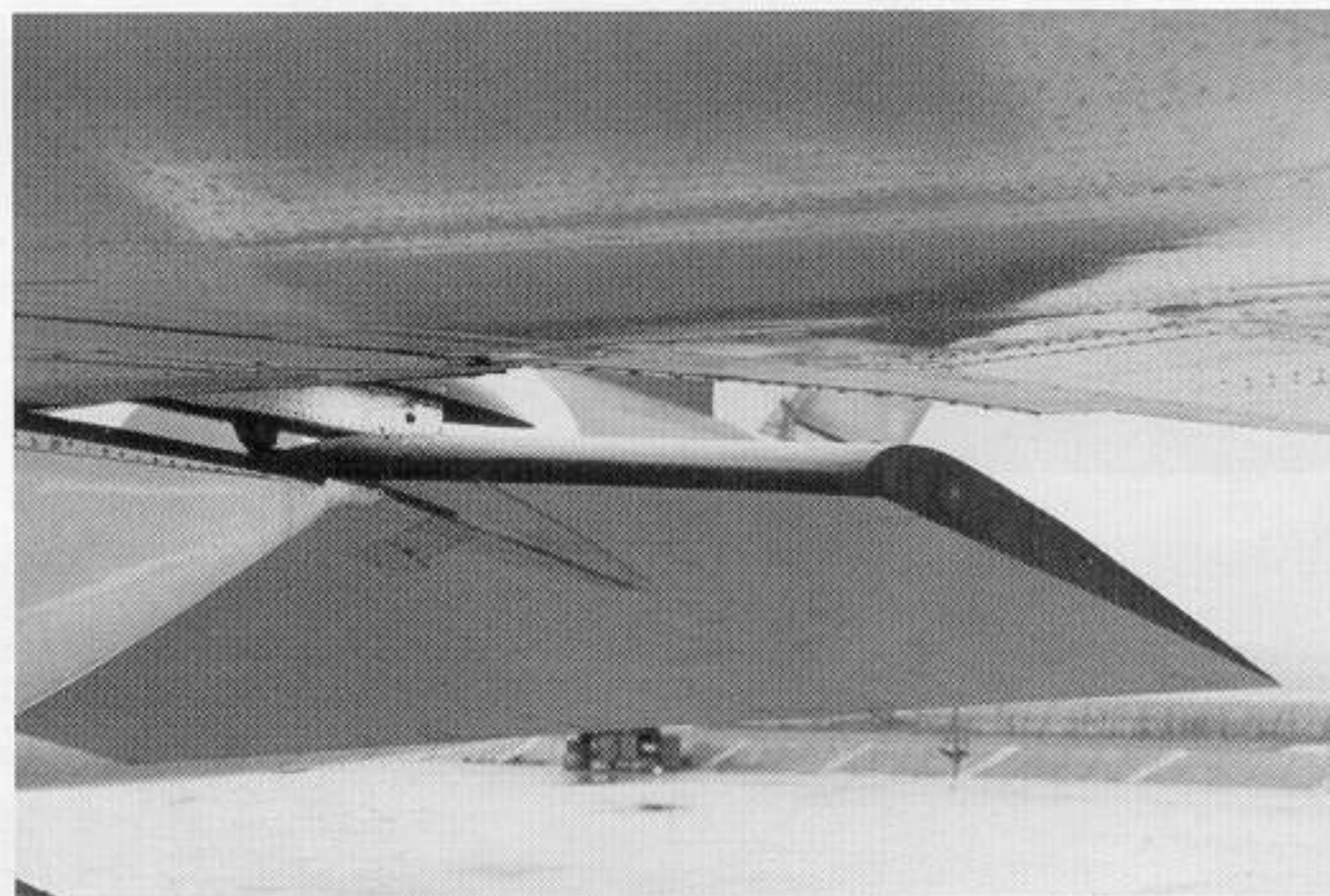
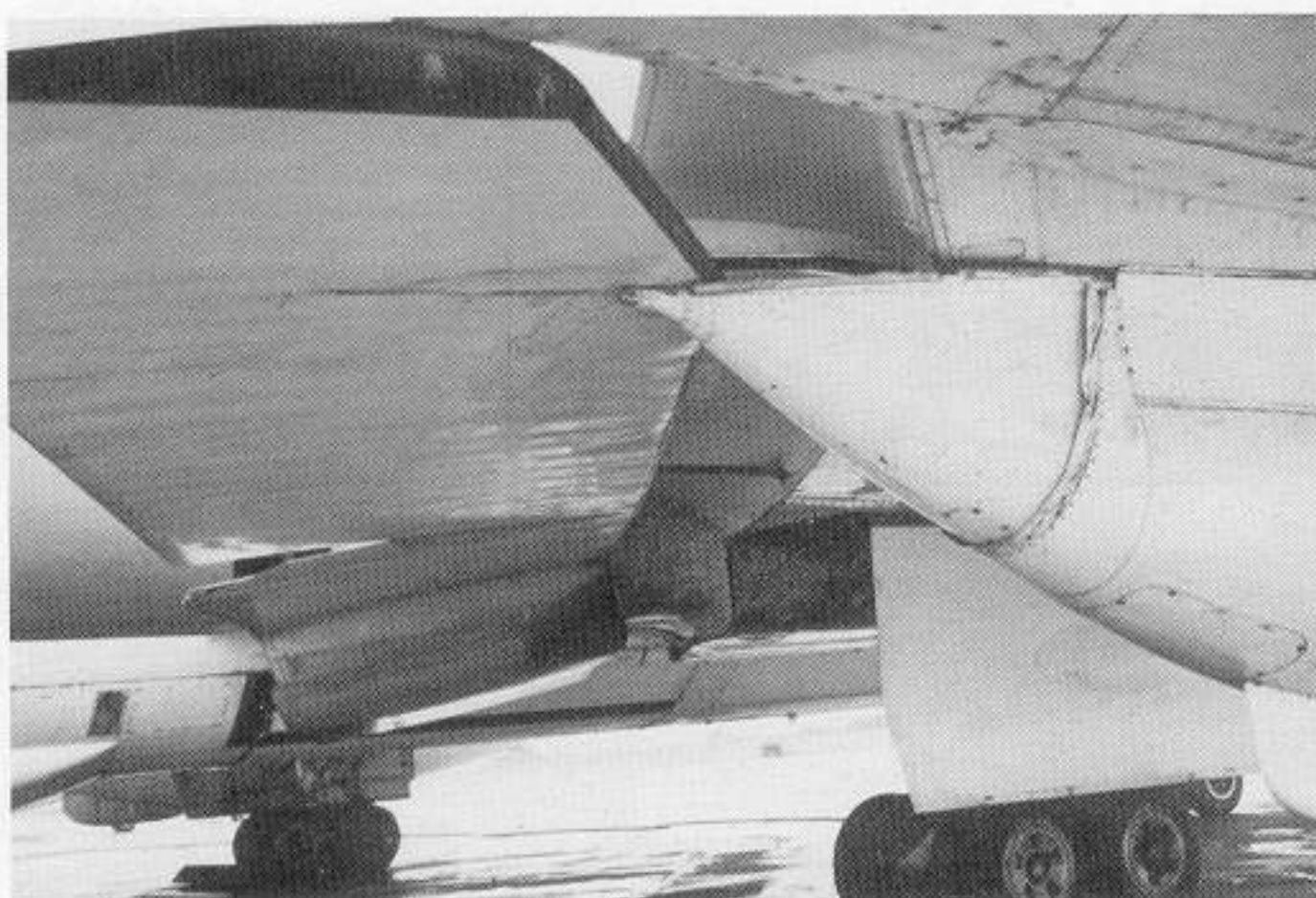






**Above:** Underneath the starboard wing, showing the trailing-edge flap housings. The flaps are in the 'down' position.  
**Below left:** Flaps set for take off. The rearmost portion of the underwing tank is hinged to allow the flap to deploy.  
**Below right:** Port outer flap, take-off setting. Note the outline of the rear part of the underwing tank on the flap leading edge;

when fully retracted, the flap forms a seal with the tank by means of the rubber strip (visible) on the latter.  
**Bottom left:** Outboard flap, starboard wing, showing detail of the carriage slot on the upper surface.  
**Bottom right:** Junction of inboard and outboard flaps, port wing. Both are set for take off, despite the differing angles.

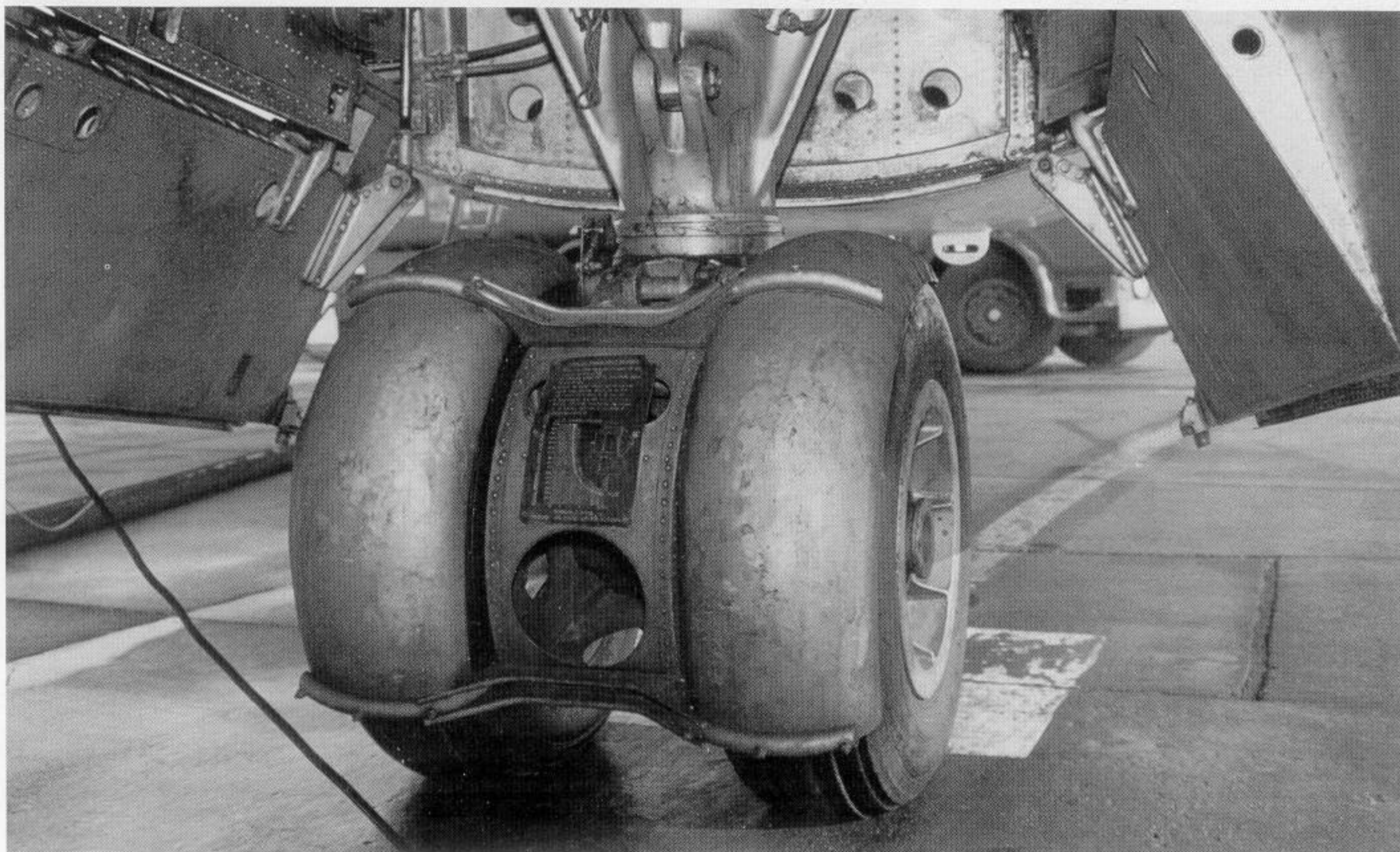




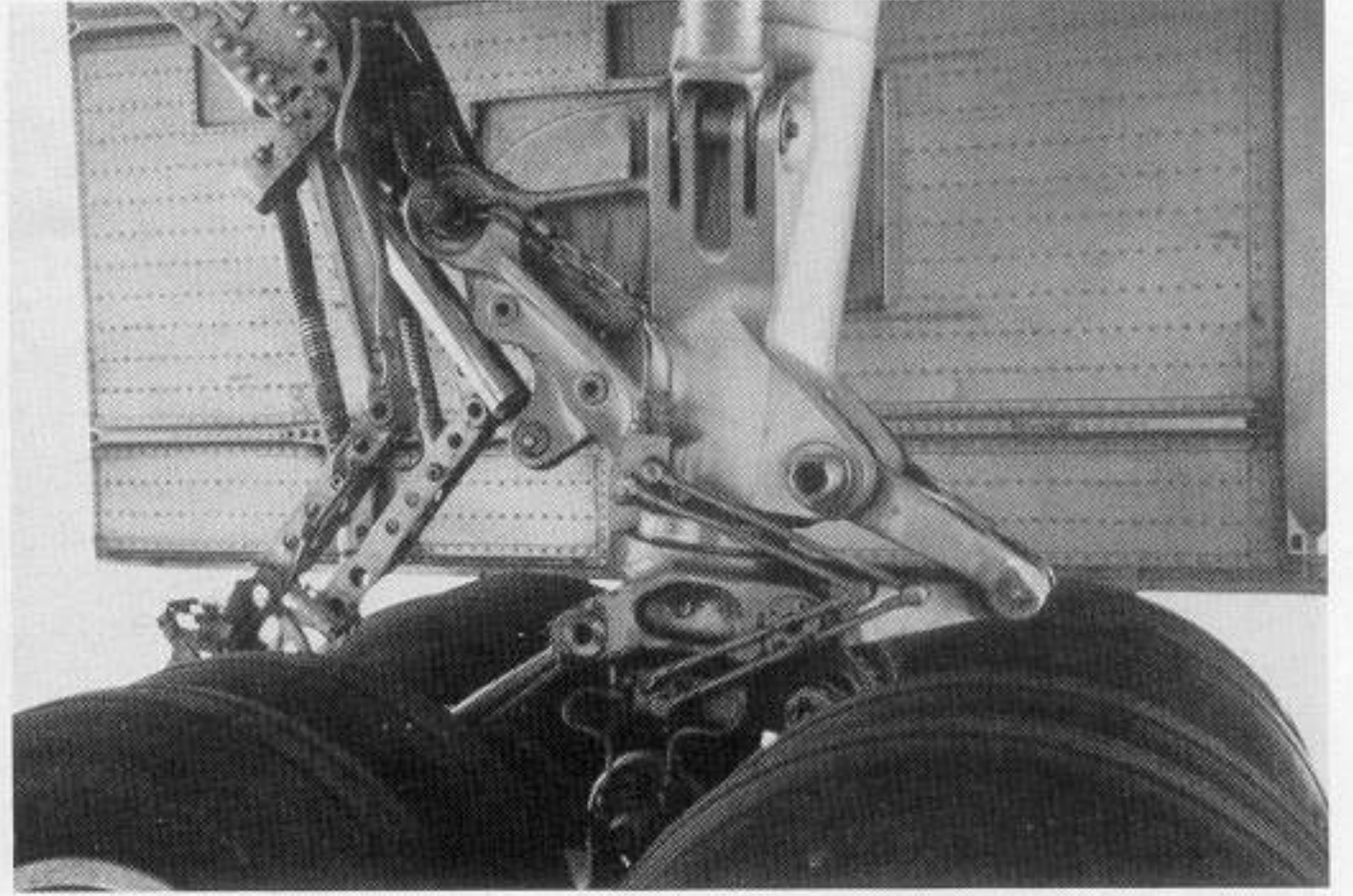
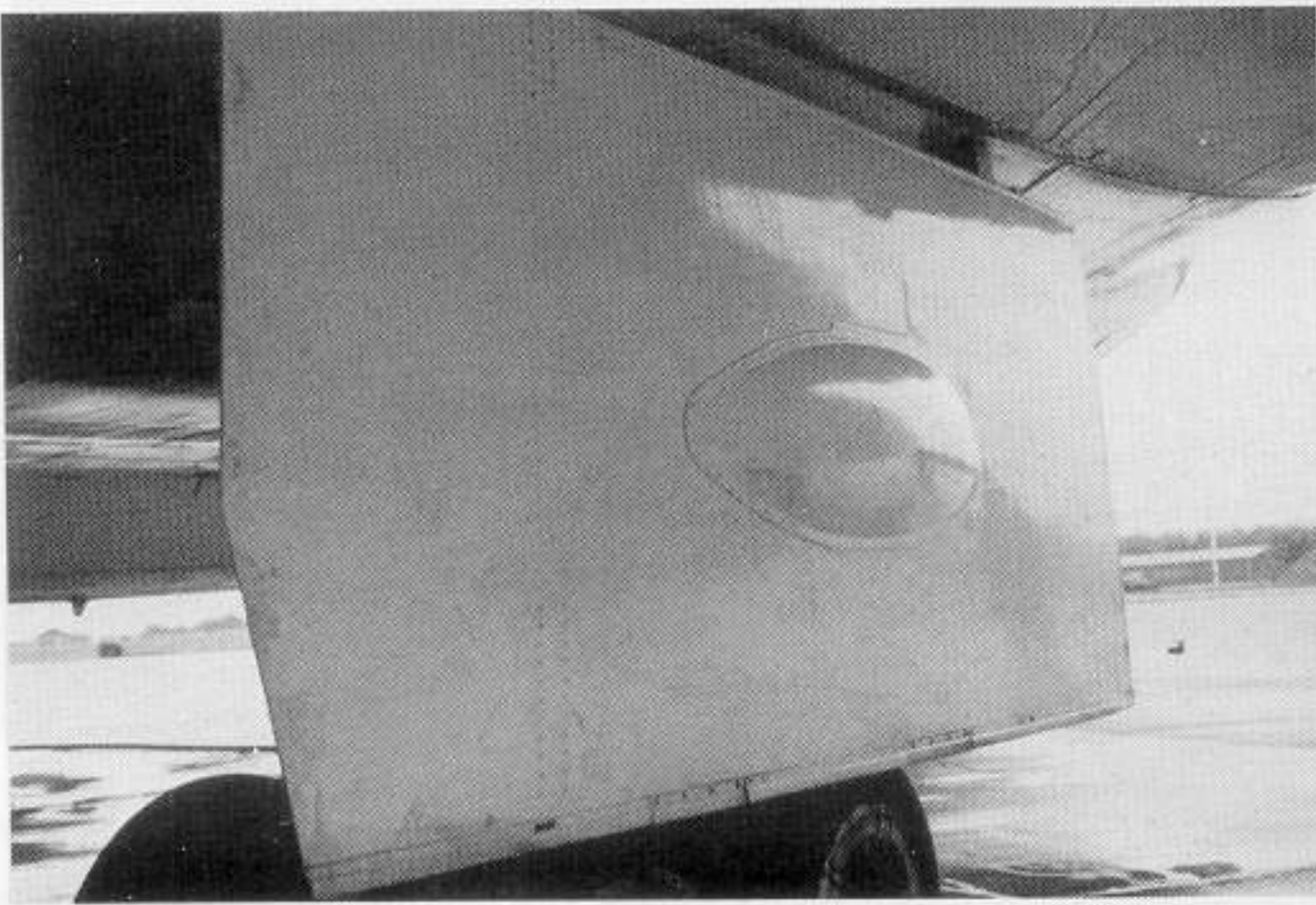
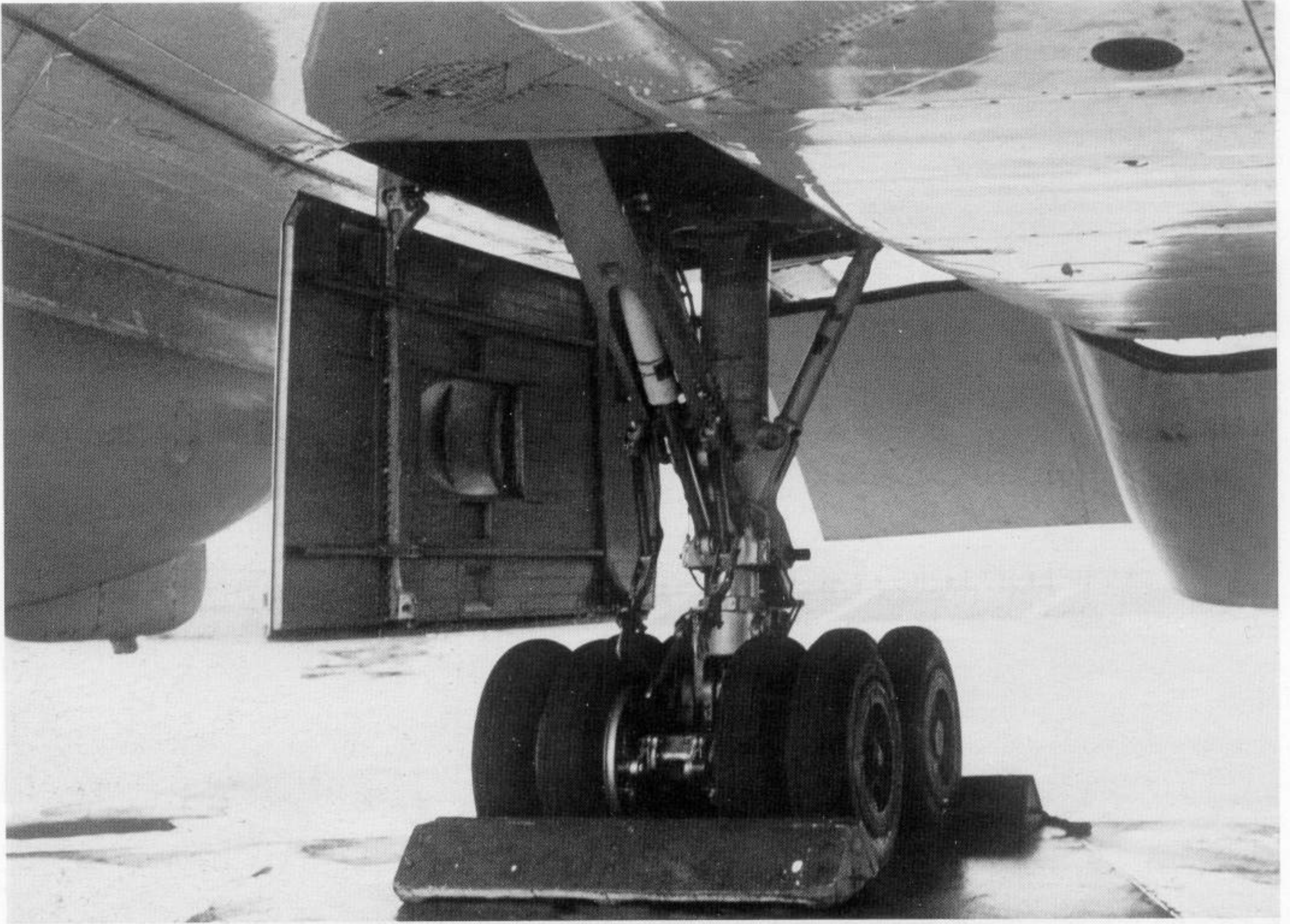
# UNDERCARRIAGE

**Below:** The nose undercarriage gear of the Victor is fitted with twin wheels, and the unit is oleo damped and features torque links in the customary manner, although the latter are concealed from the observer because of the mudguards. The complete undercarriage unit, the interior of the bay, the inside

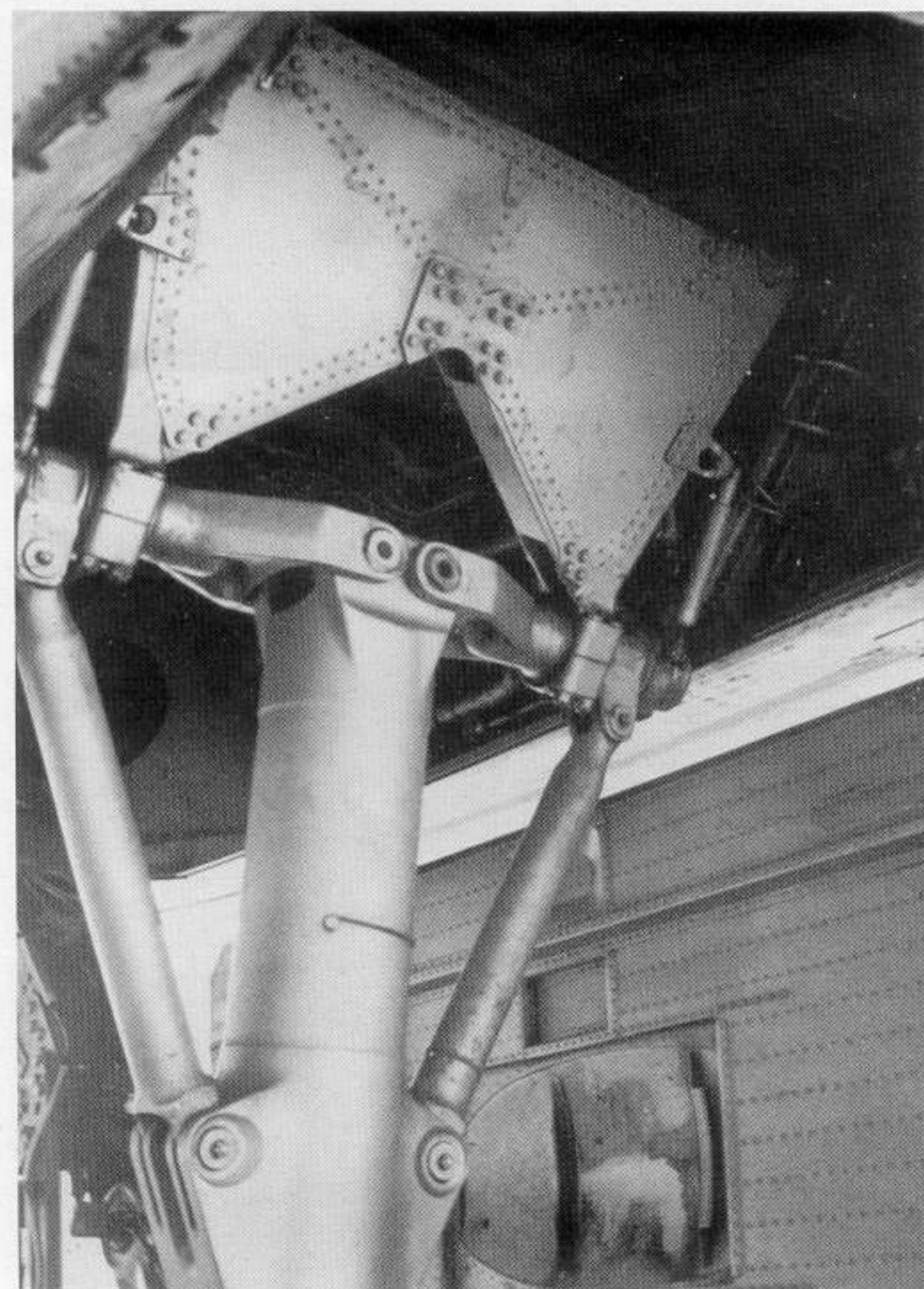
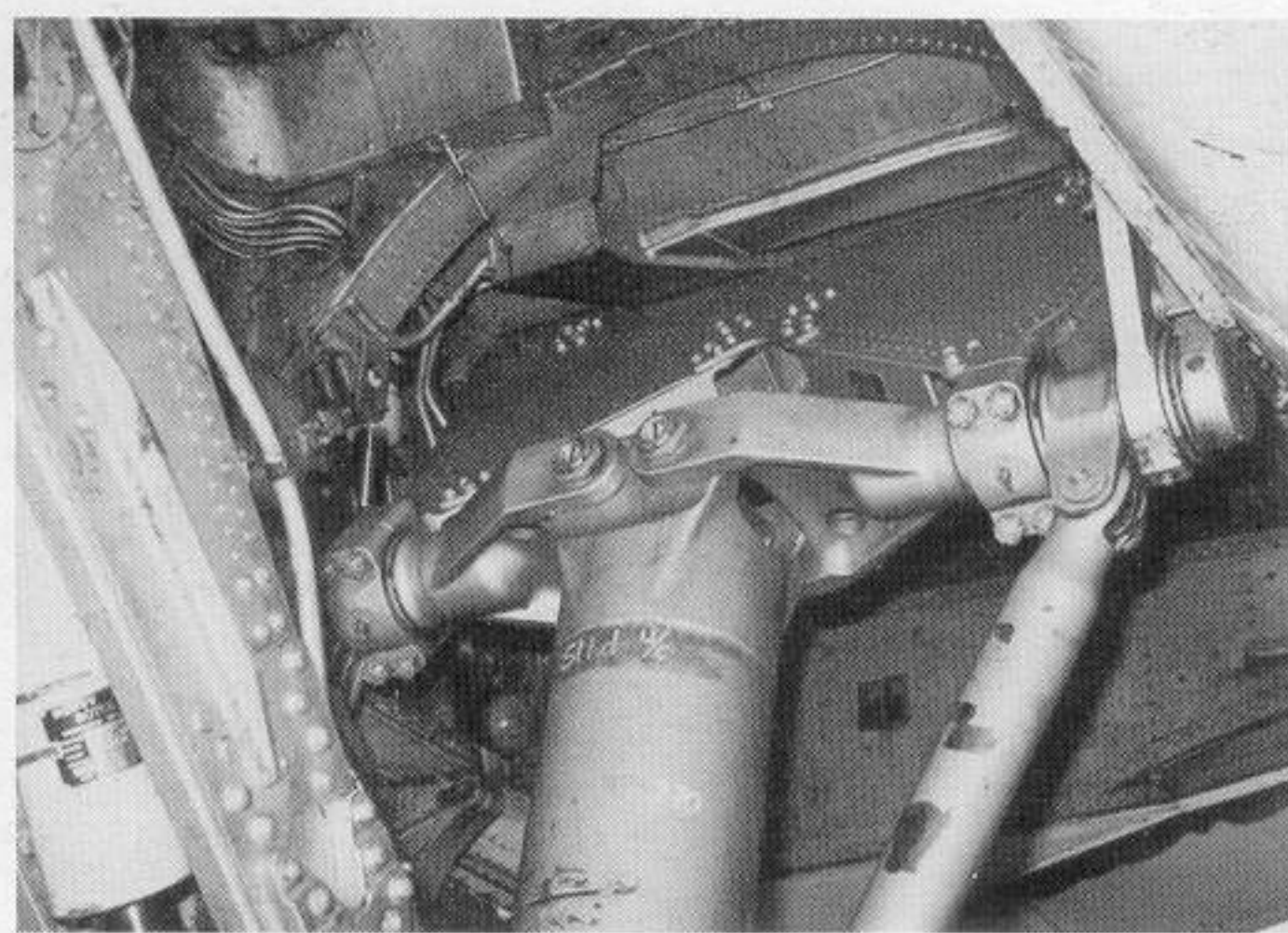
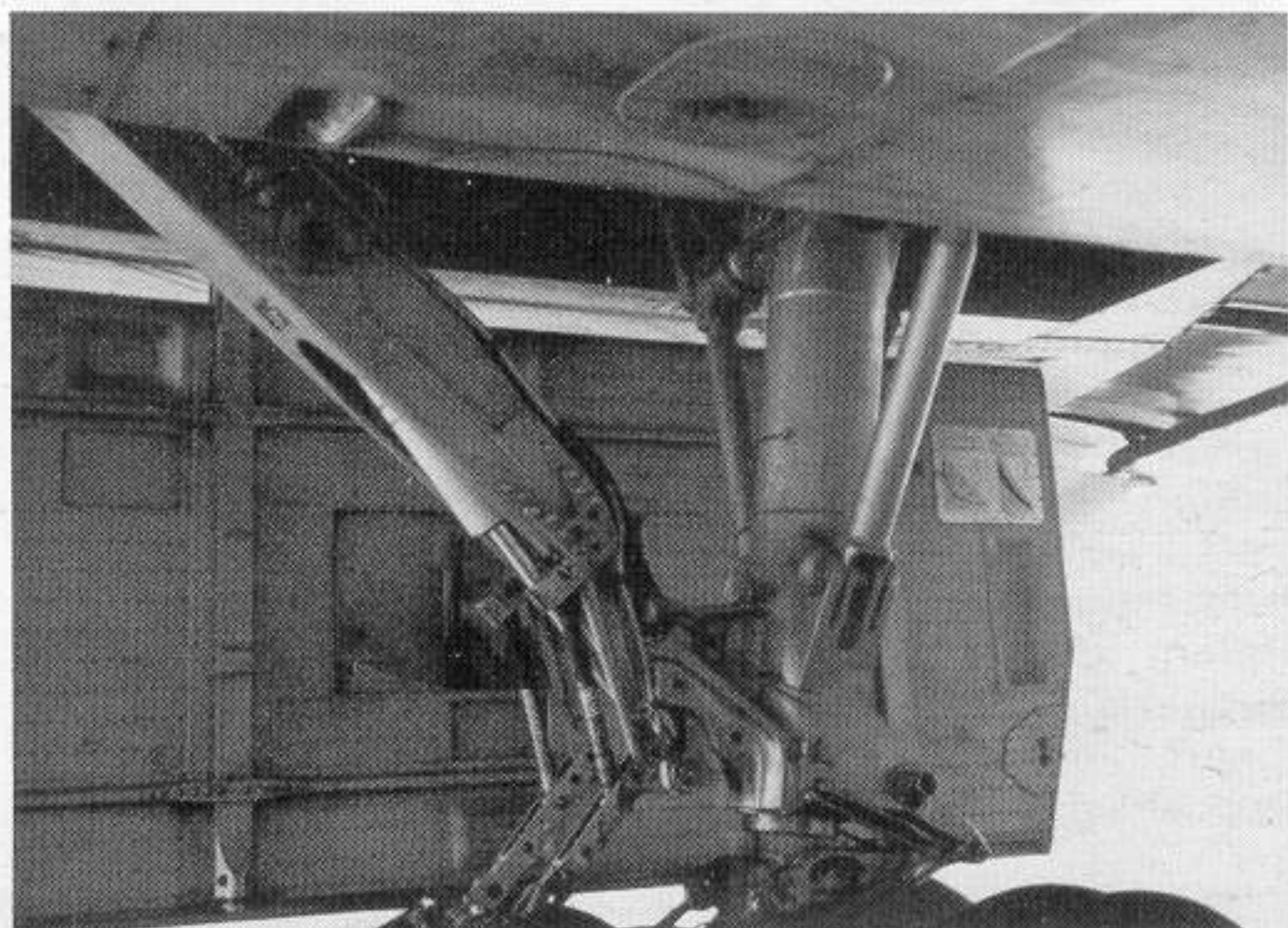
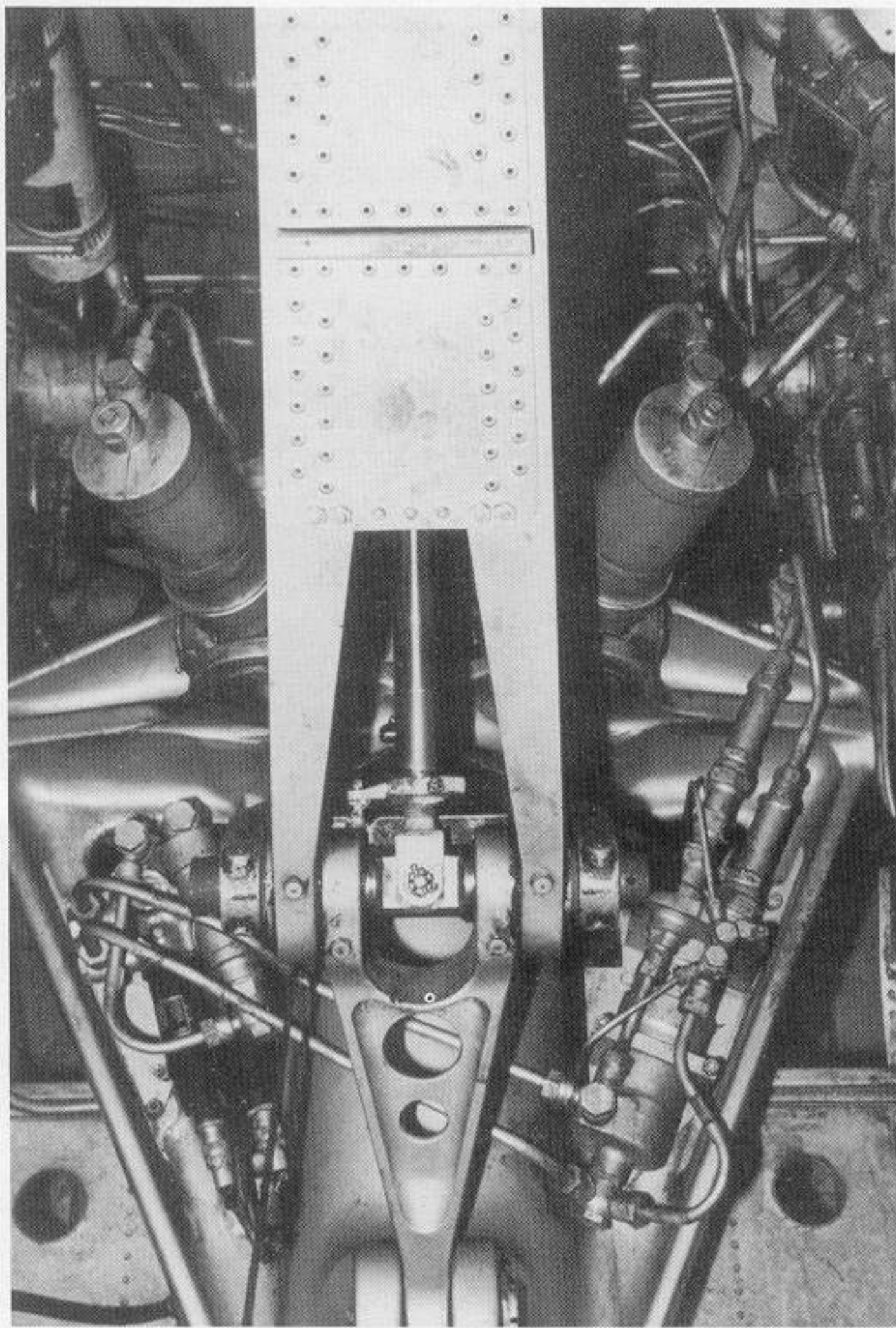
surfaces of the doors and the wheel hubs are all sprayed aluminium finish. Tyre pressure and hydraulic maintenance information appears on a plate affixed to the mudguard unit. **Bottom:** The nose undercarriage viewed from the front. The hollow axles permits the insertion of a towing bar.











**Opposite page top:** General view of starboard main undercarriage unit. Finish can be either aluminium or Light Aircraft Grey; only the retraction jack carries the latter colour here.

**Opposite page centre left:** Starboard mainwheel door. The 'bulge' houses the dashpot jack when the undercarriage is fully retracted. Main gear retraction requires the bogie units to lie inverted within the bay, and the dashpot jack extends after take-off to help achieve this.

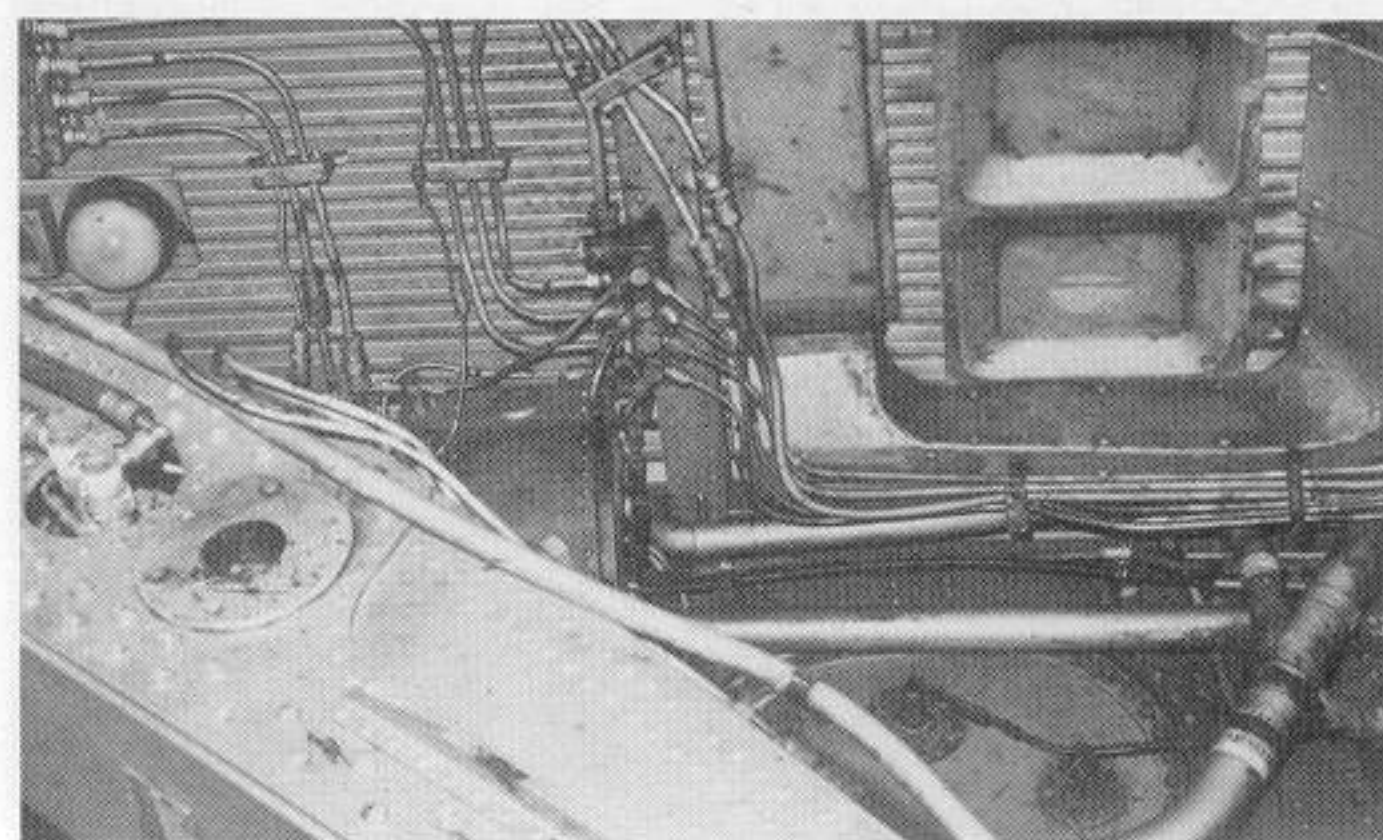
**Opposite page centre right and bottom:** Three views of the starboard bogie unit, showing the tip hooks which engage the rollers beneath to raise the front wheels during retraction.

**Above left:** Nose undercarriage bay, showing the two steering jacks at the top of the yoke, the upper radius rod and the oleo of the retraction jack.

**Above right:** Two views of the upper portions of the starboard main undercarriage unit; note retraction jack within radius rod.

**Left:** Top of mainwheel shock absorber and retraction link.

**Below:** Starboard main bay; note servicing light at far left.





# COCKPIT

**Below:** The Victor's main instrument panel. Engine instruments are in the centre; below, the interseat console contains the refuelling panel. The overhead console mounts the Instrument Landing System (ILS), engine start and standby compass and is fitted with a stretch lead for a wander light. The seat in the right foreground is for use by the crew chief or crew checkers.

**Bottom left:** Rear aspect of the pilot's ejection seat. Circuit breaker panel, axe, asbestos gloves and services can be seen in the extreme bottom left-hand corner of the photograph.

**Bottom right:** Pilot's instrument panel. The refuelling panel to his right is in the raised position. Note nosewheel steering control to the right of the 'spectacle' wheel.

**Opposite page top left:** Co-pilot's panel and side console,

showing the throttle box to the right of the seat.

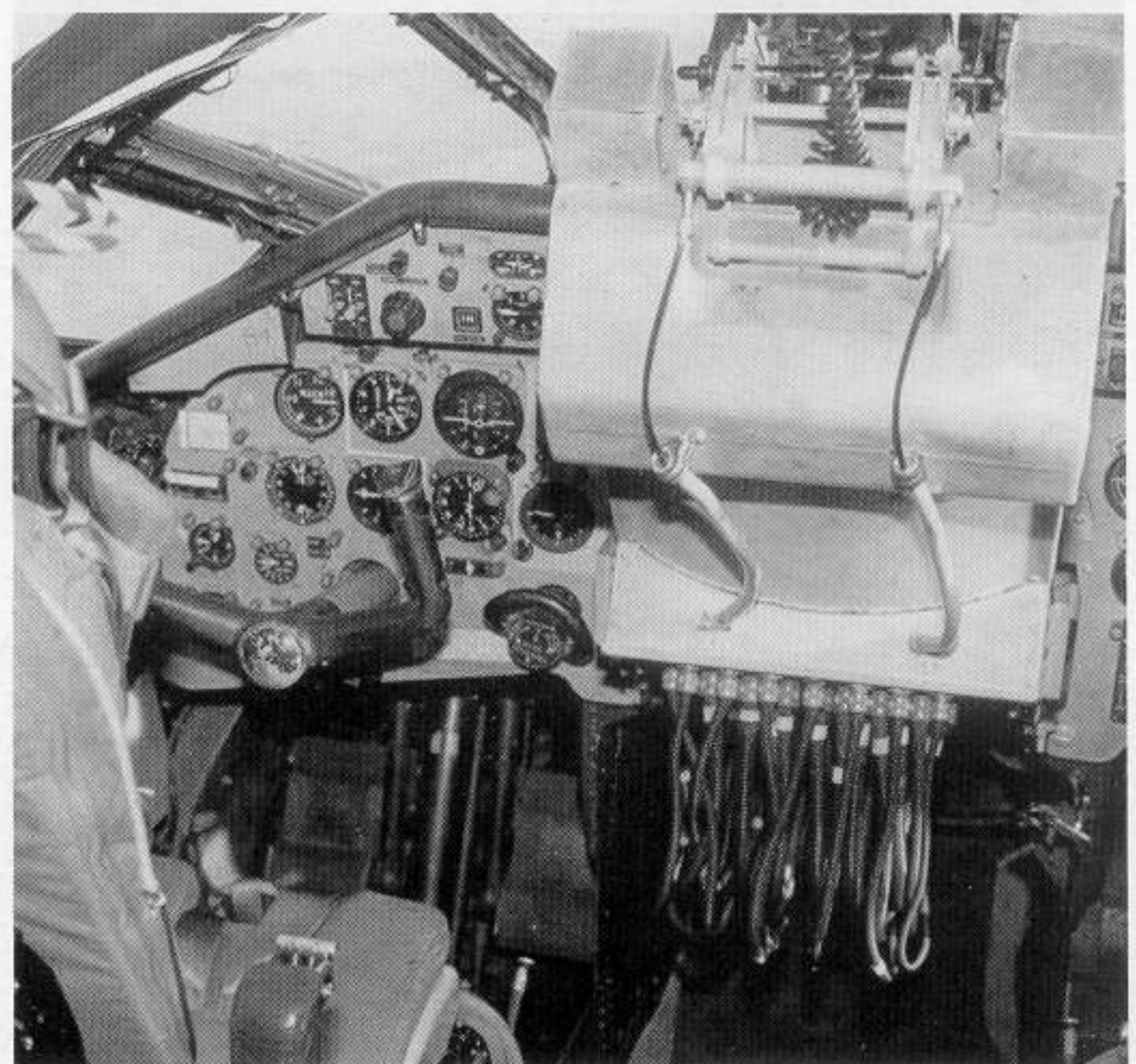
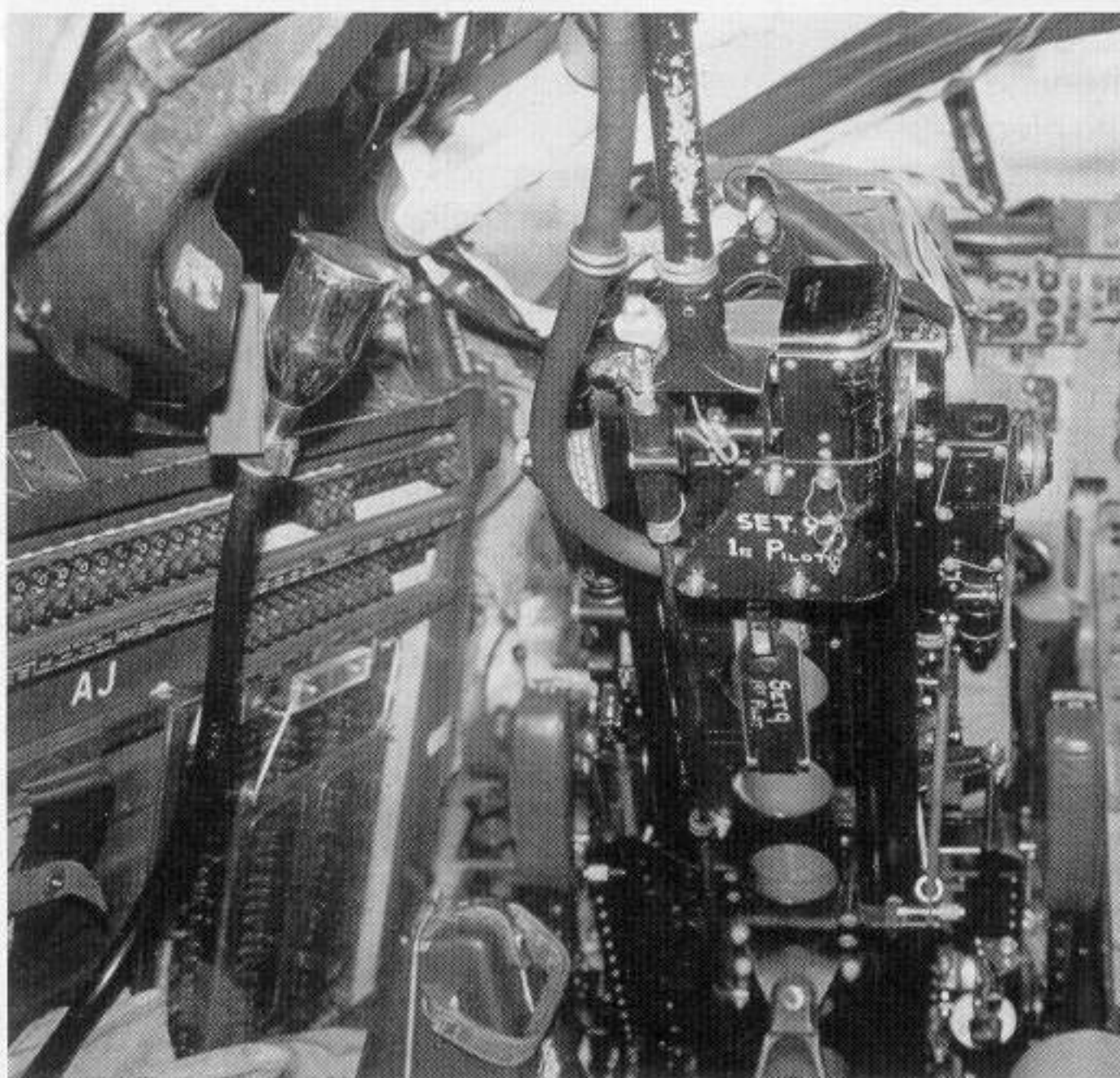
**Opposite page top right:** Rearward-facing seats for Nav Radar (left) and Nav Plotter. At top left can be seen the Very pistol, internal light and flare stowage.

**Opposite page centre left:** The third rear-facing crewman is the Air Electronics Officer (AEO), whose position is shown.

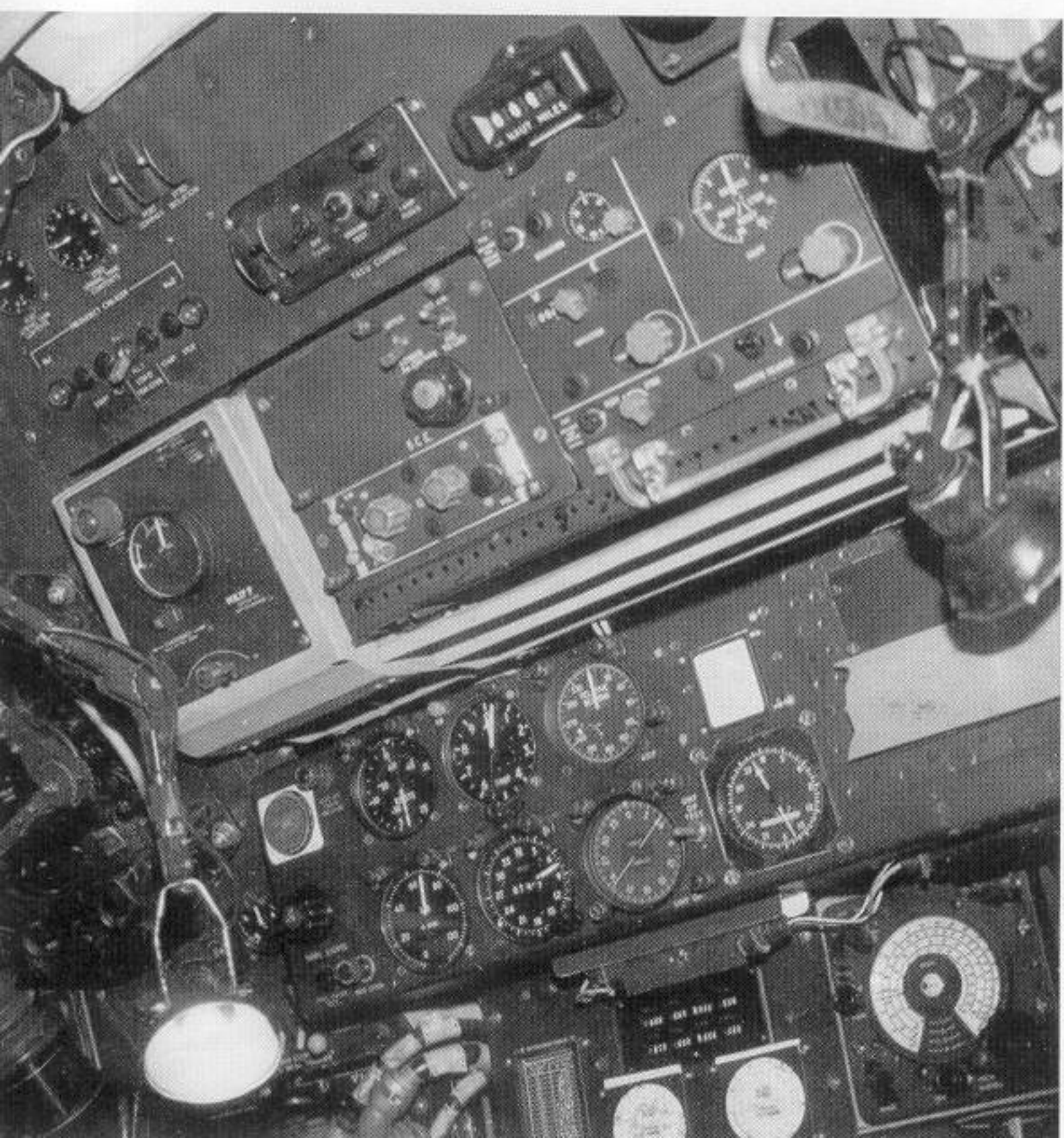
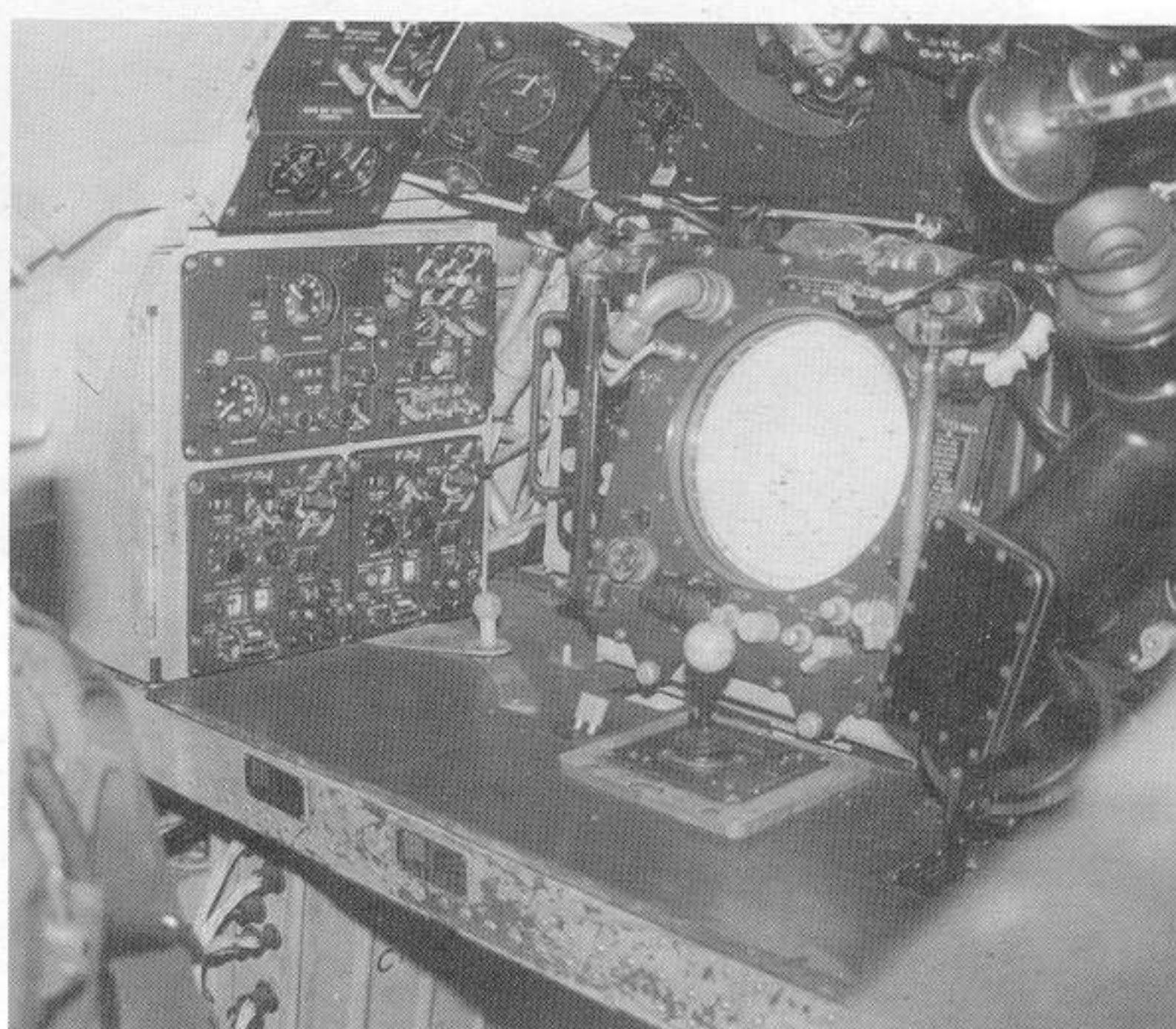
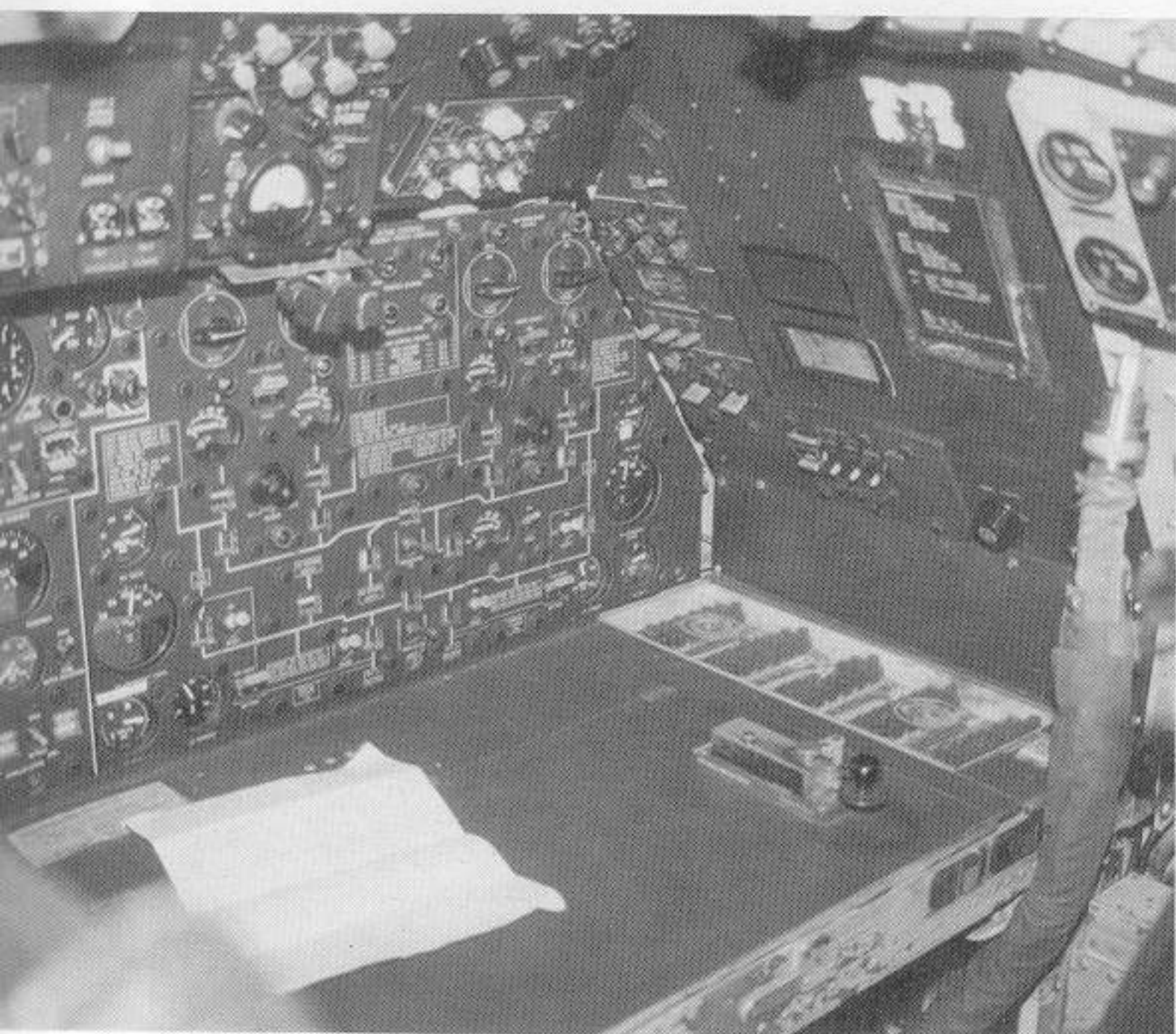
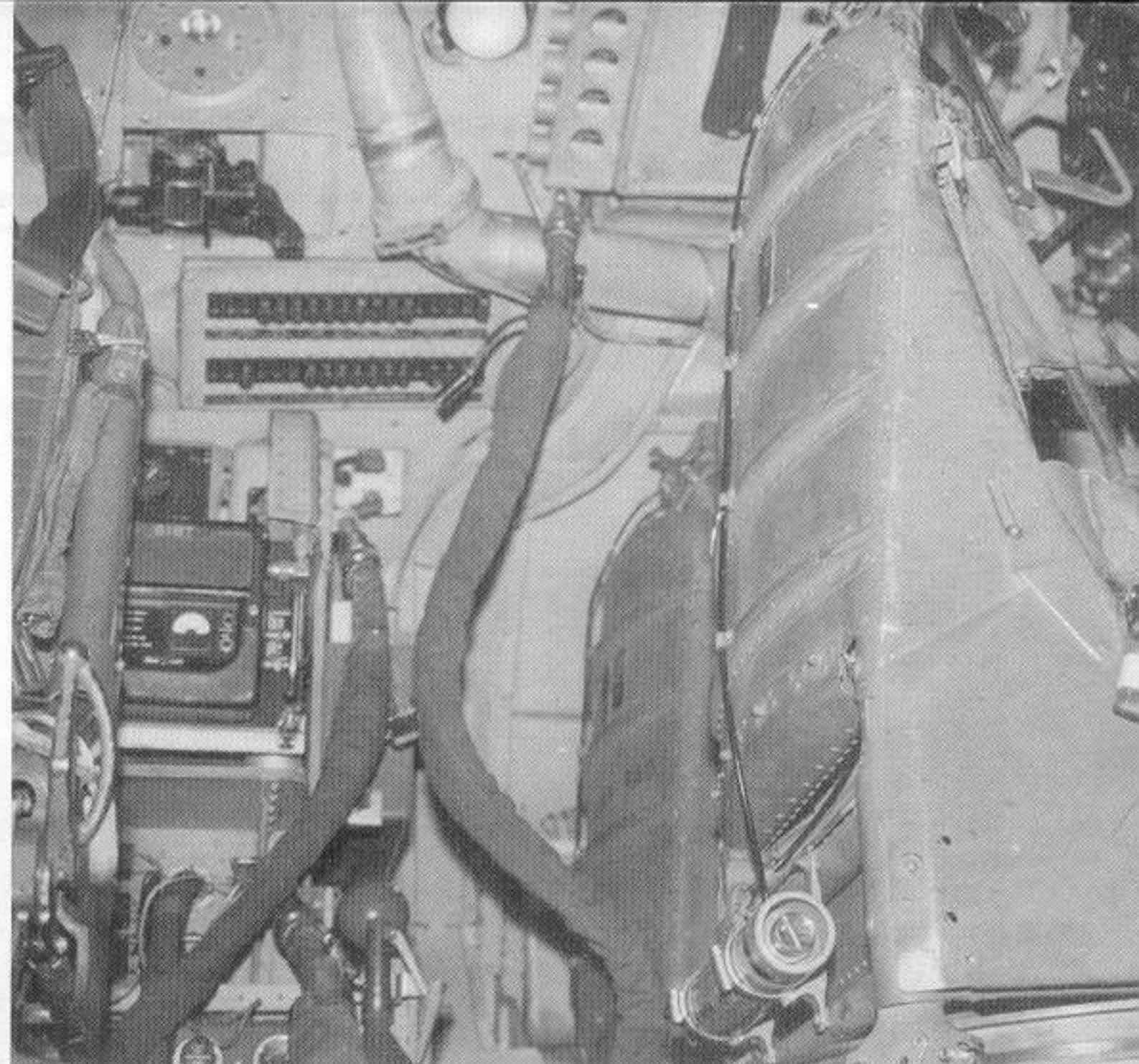
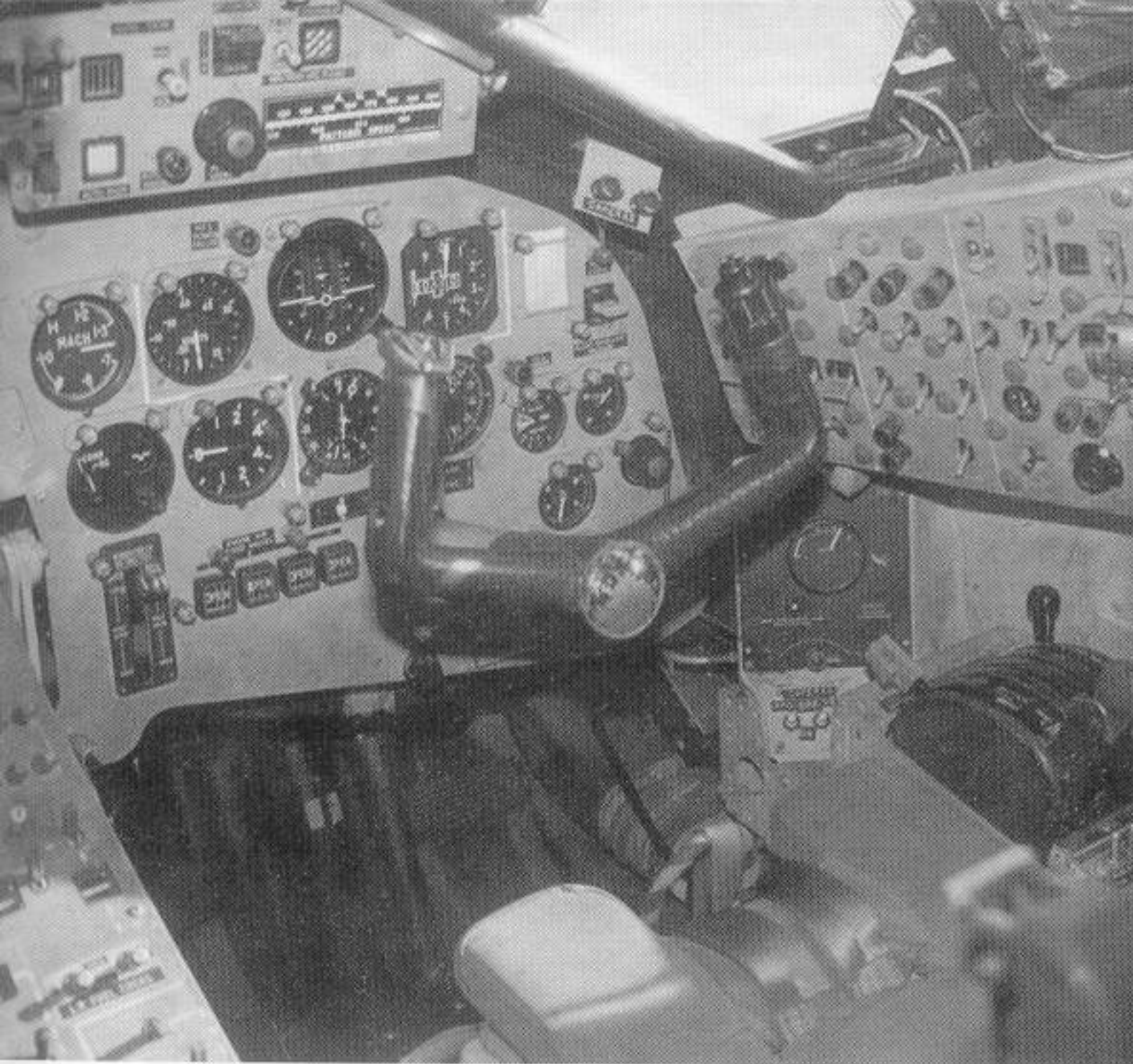
**Opposite page centre right:** Nav Radar position, showing H2S radar screen, HDU panel (left) and periscope (right); the HDU control panel is mounted above the control panels for the two wing pods.

**Opposite page bottom left:** Nav Plotter's upper instrument panel.

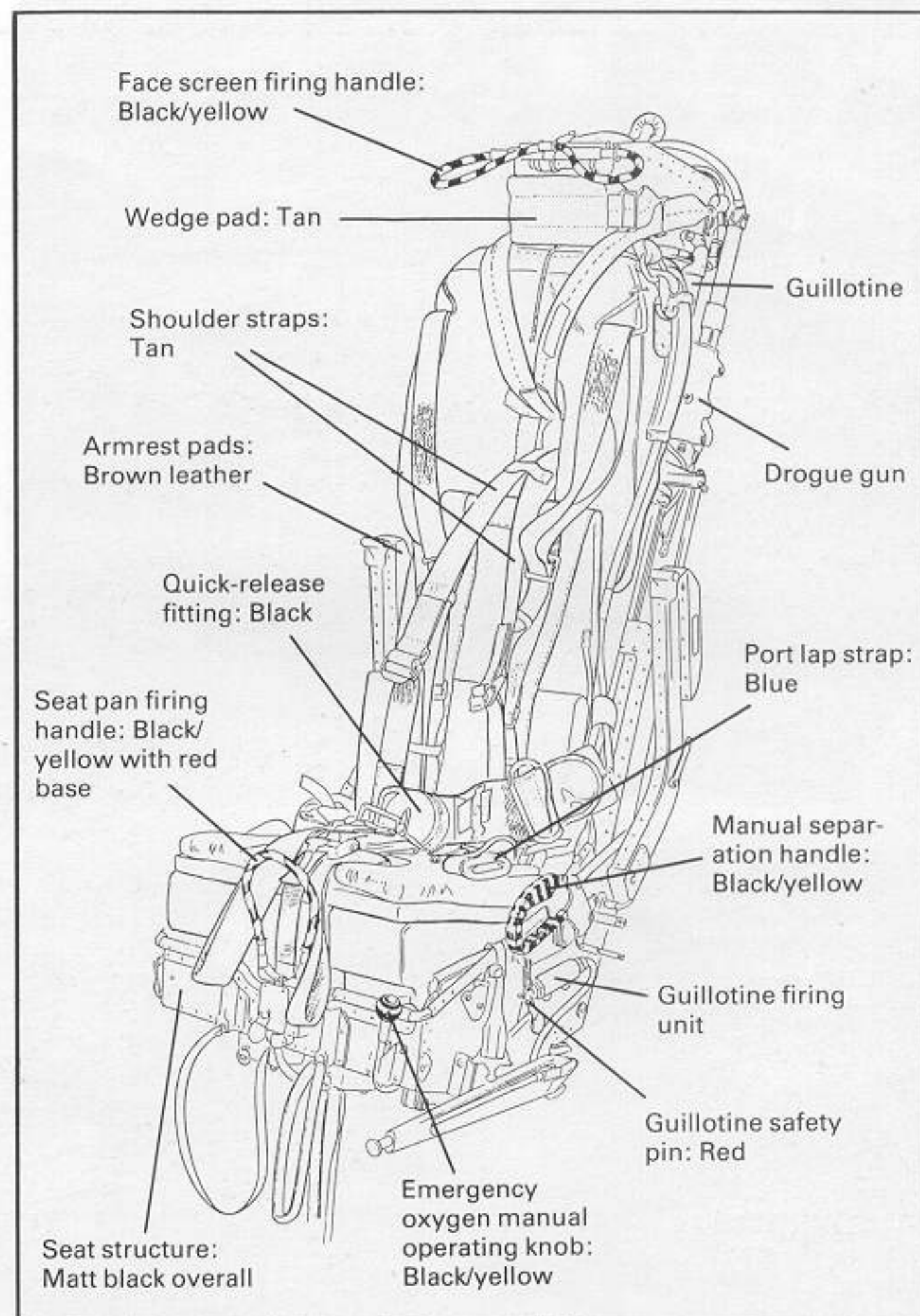
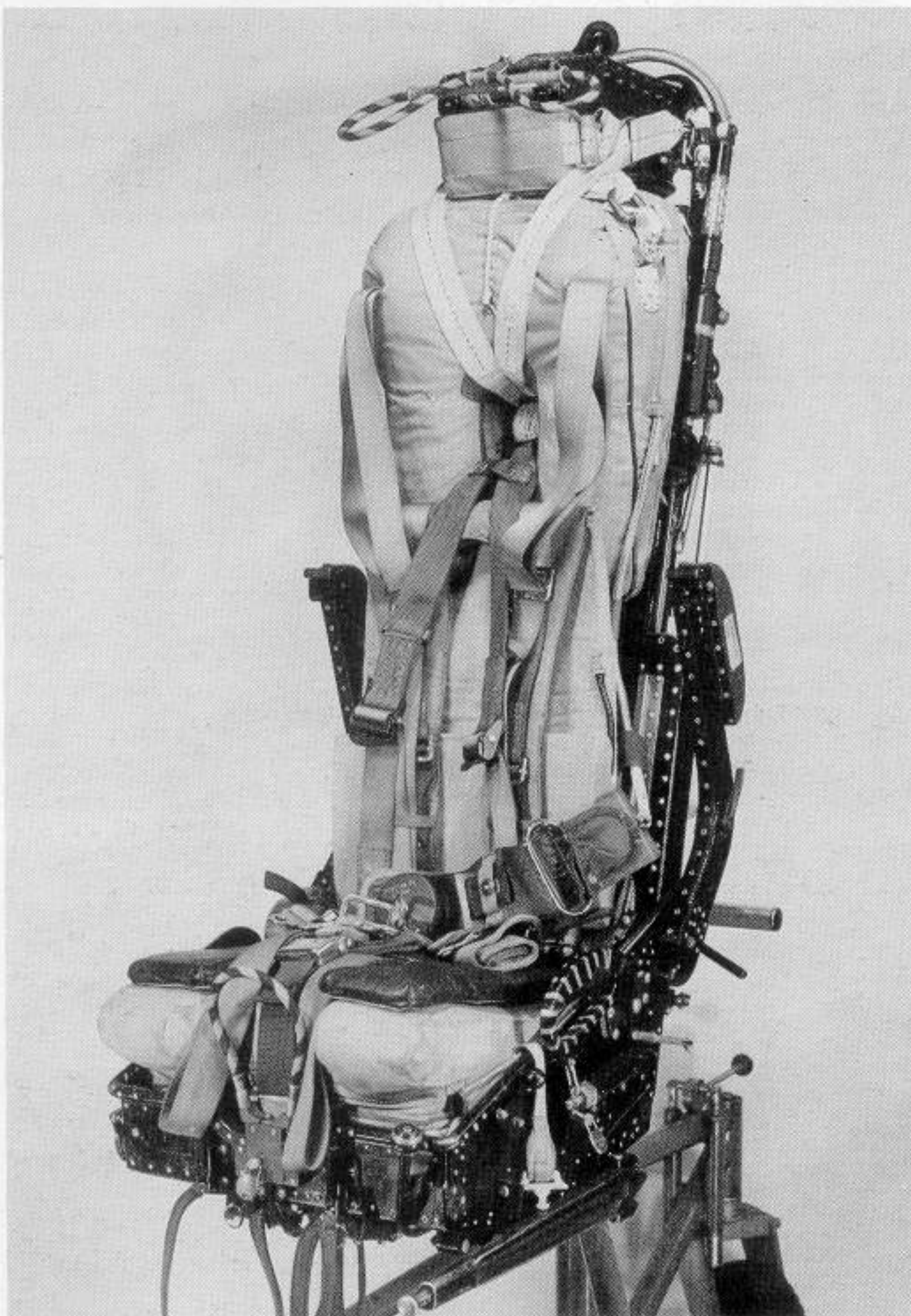
**Opposite page bottom right:** Interior of crew entry door, showing escape rope at right and flash screen above window.









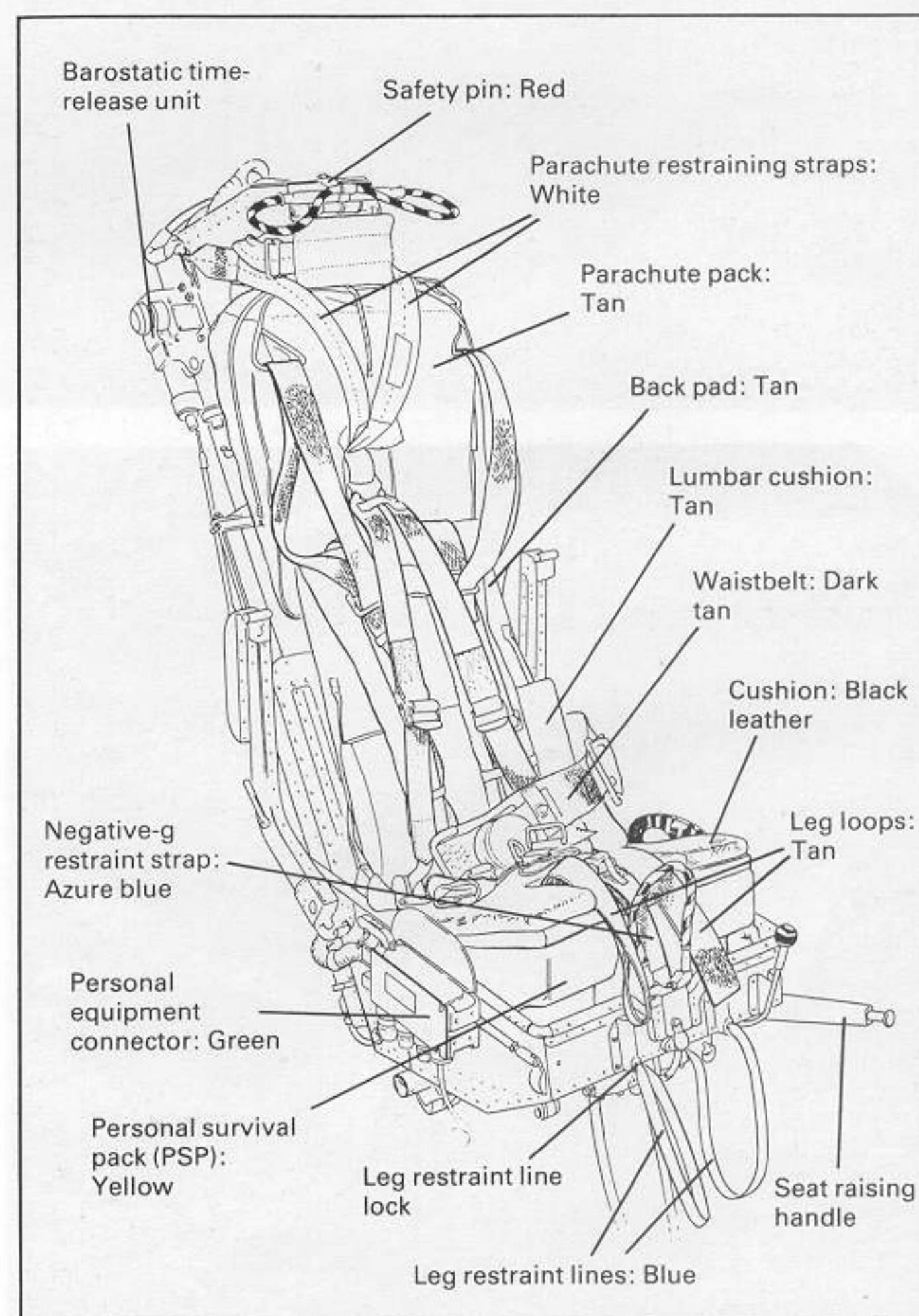
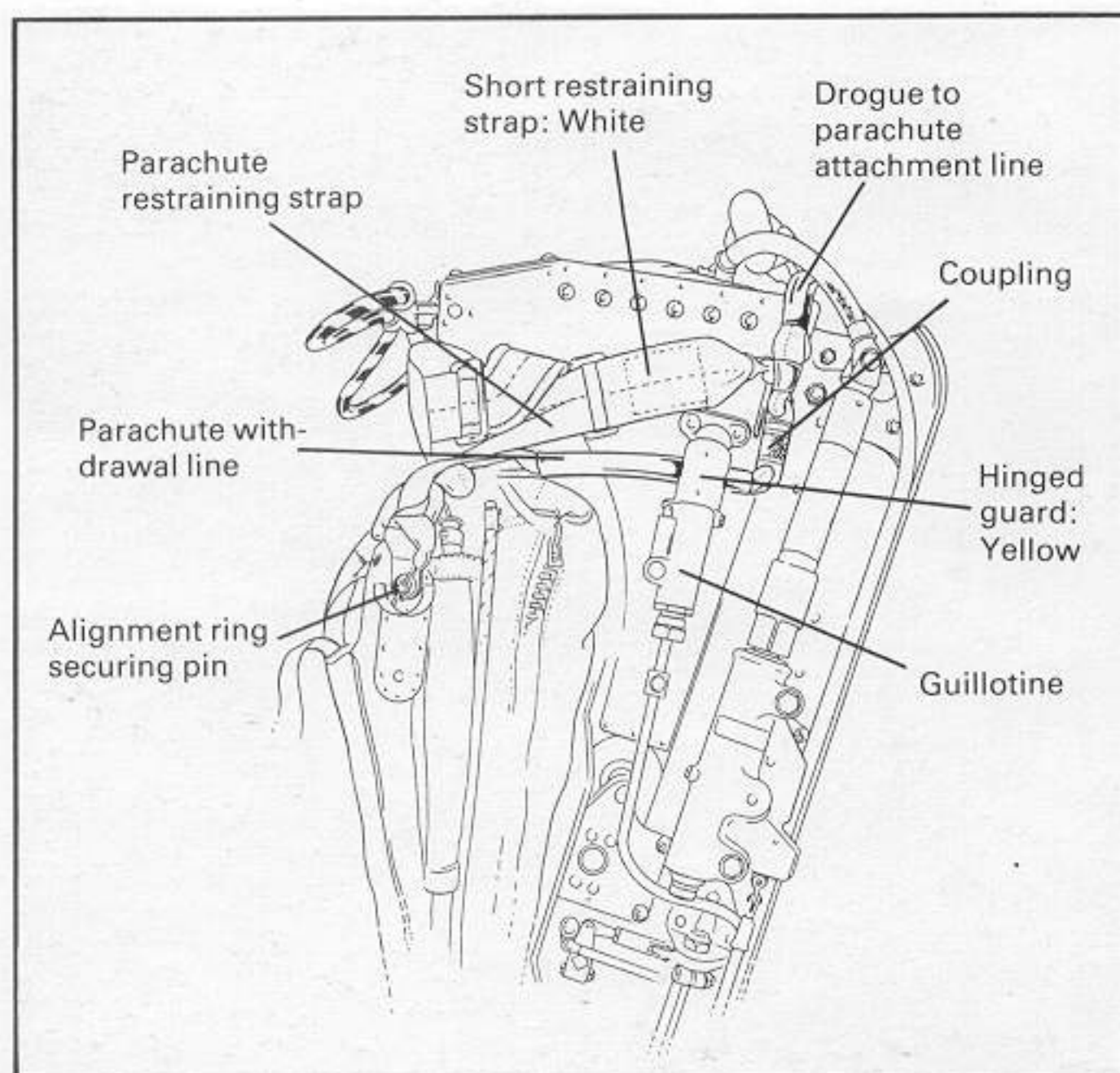


**Above left:** The Martin-Baker Type 3LS2 Mk 3 ejection seat, as fitted for the co-pilot of the Victor K Mk 2. The pilot is provided with a Type 3LS1 Mk 3, which is similar in appearance. *Martin-Baker Aircraft Co*

**Above right:** Annotated drawing showing the principal features of the Type 3LS2 Mk 3 seat and details of their colouring. *Martin-Baker Aircraft Co*

**Below:** Details of the port side of the ejection seat drogue container, Victor K.2. *Martin-Baker Aircraft Co*

**Right:** The Type 3LS2 Mk 3 seat from the starboard side. *Martin-Baker Aircraft Co*

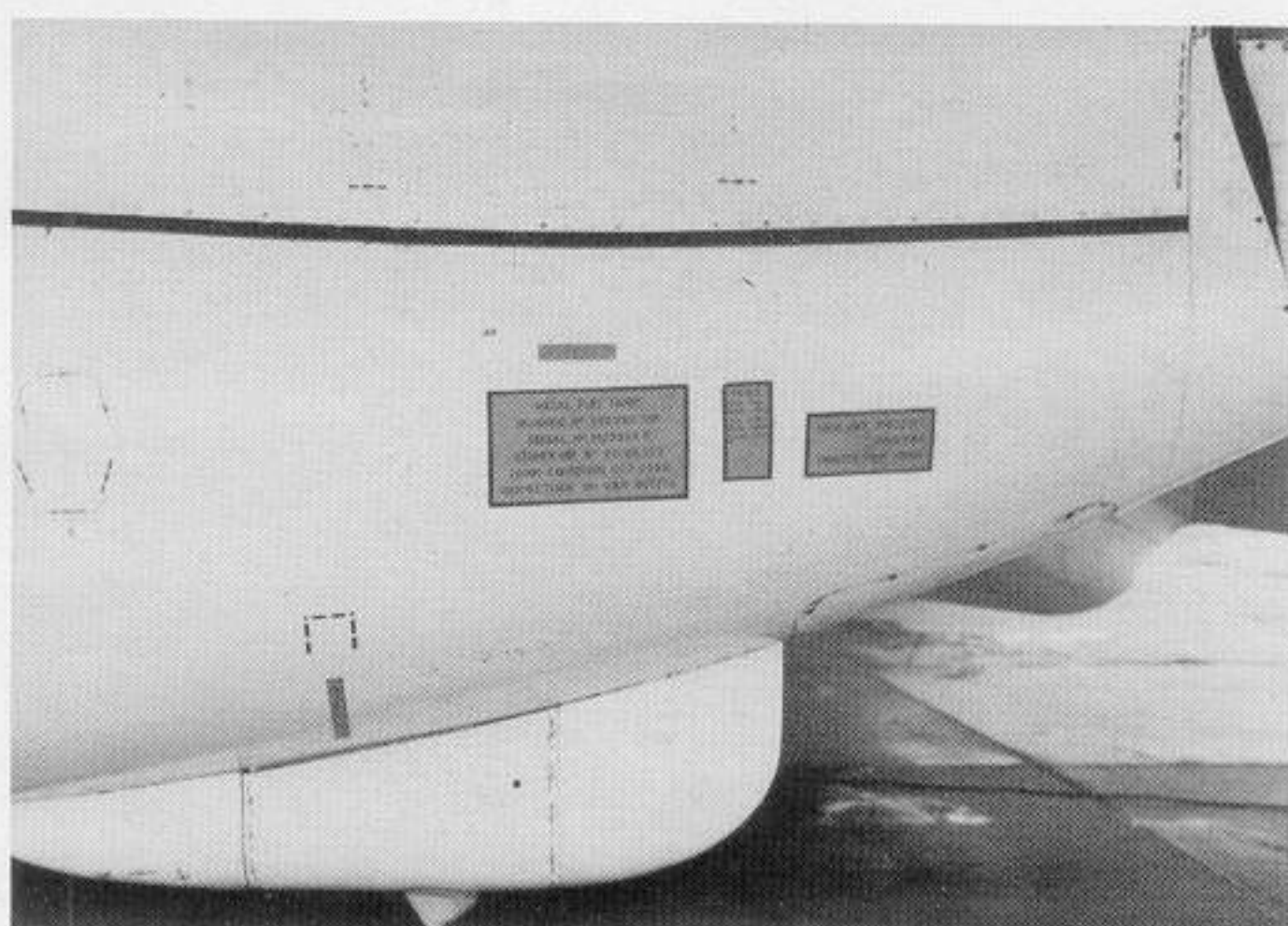
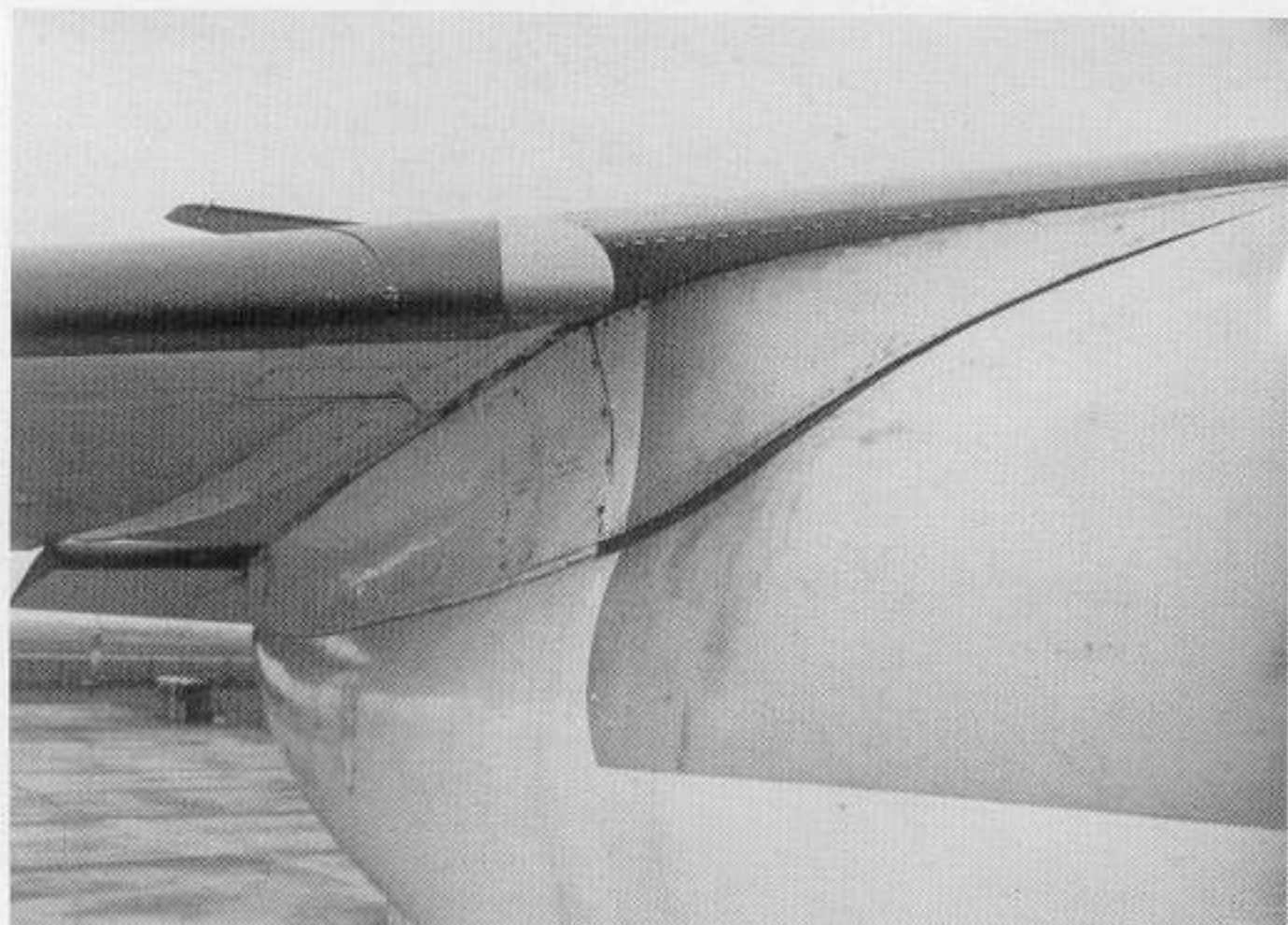
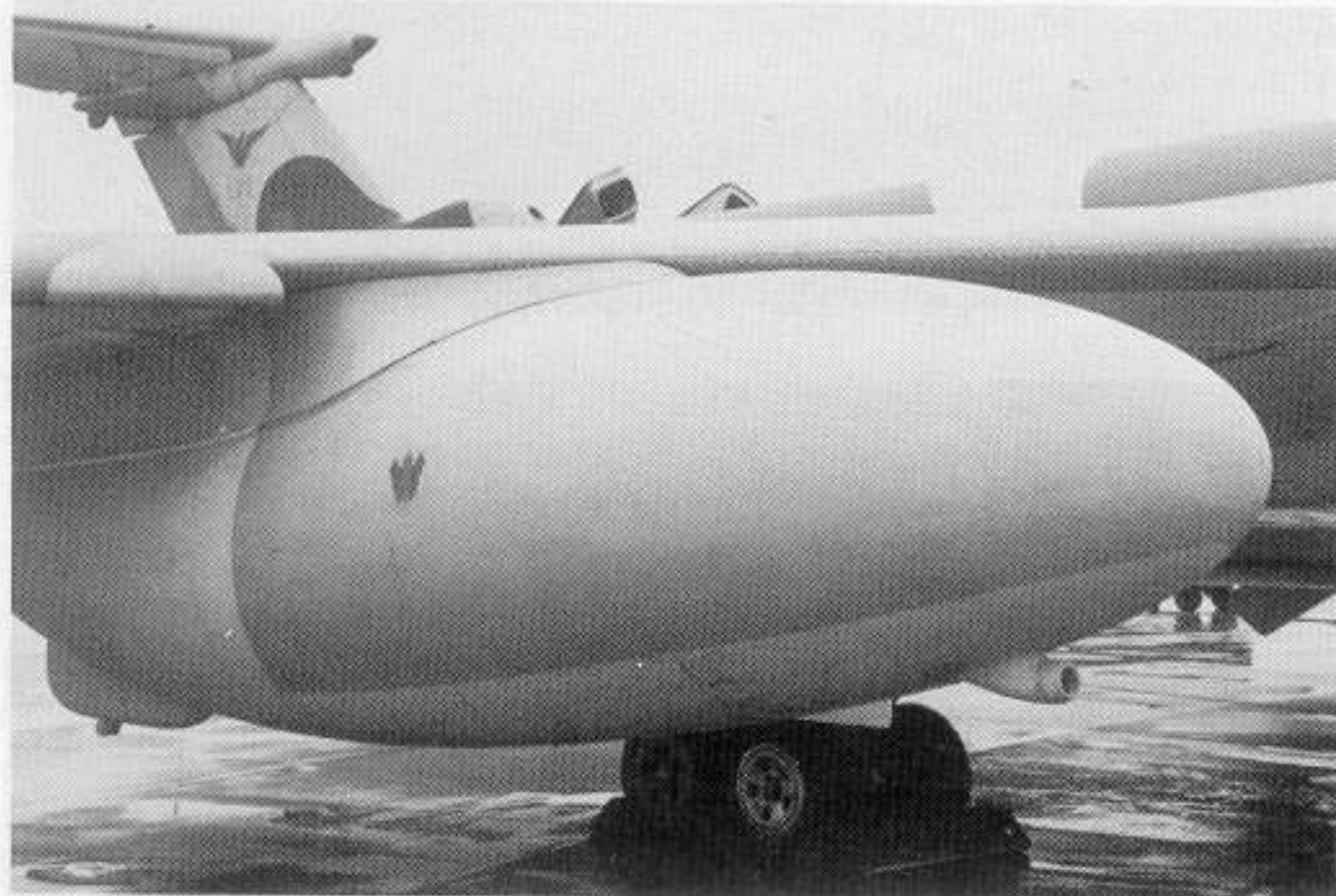
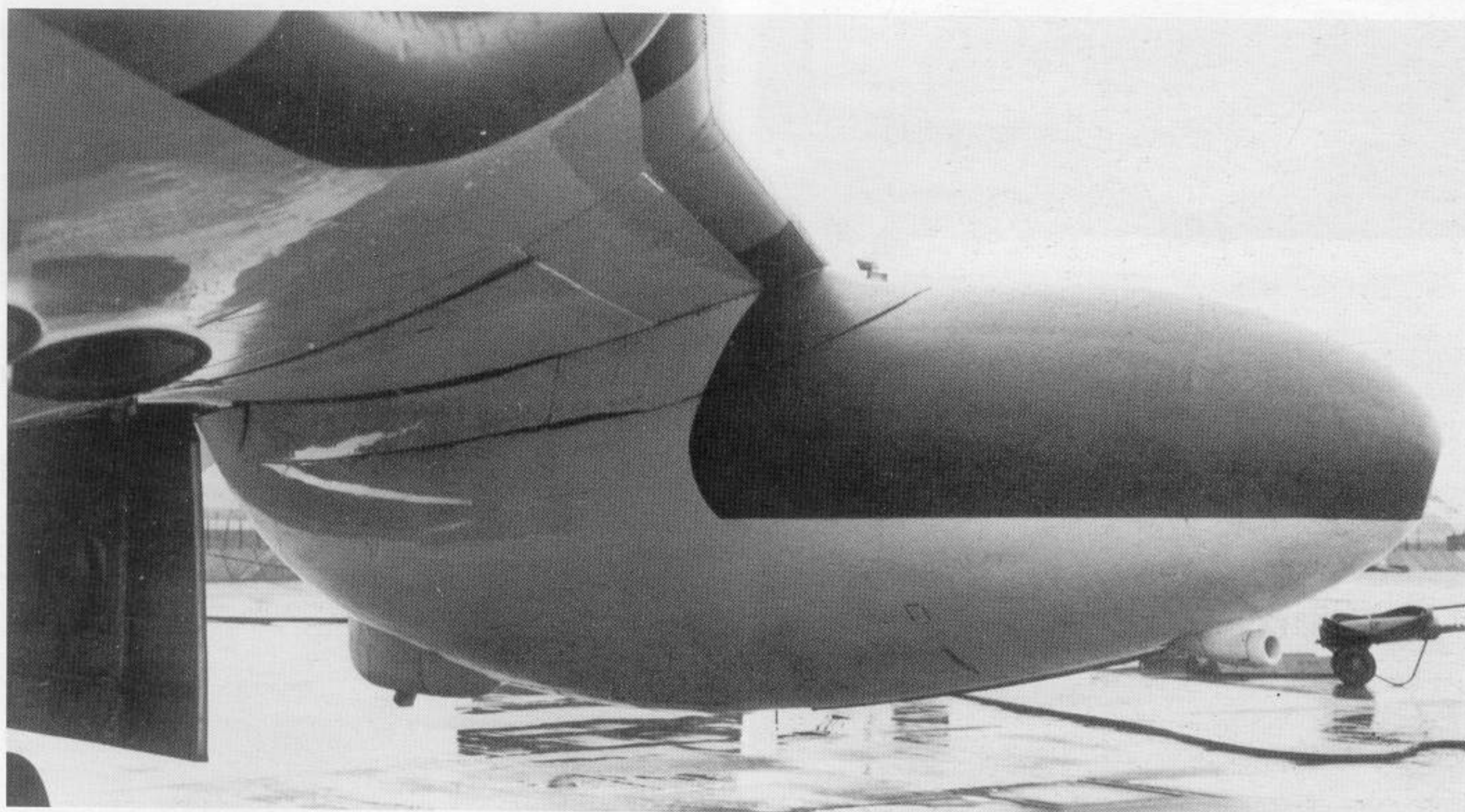




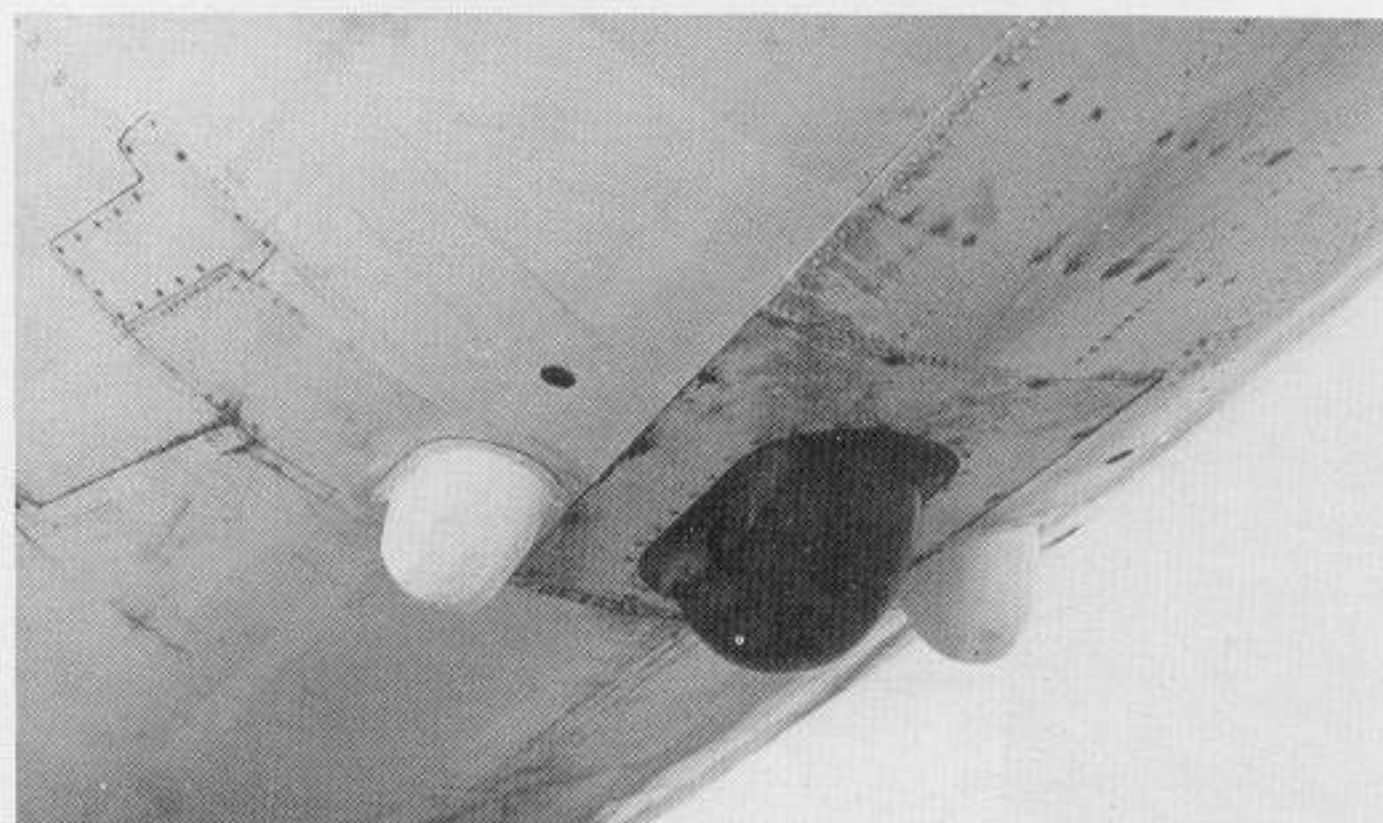
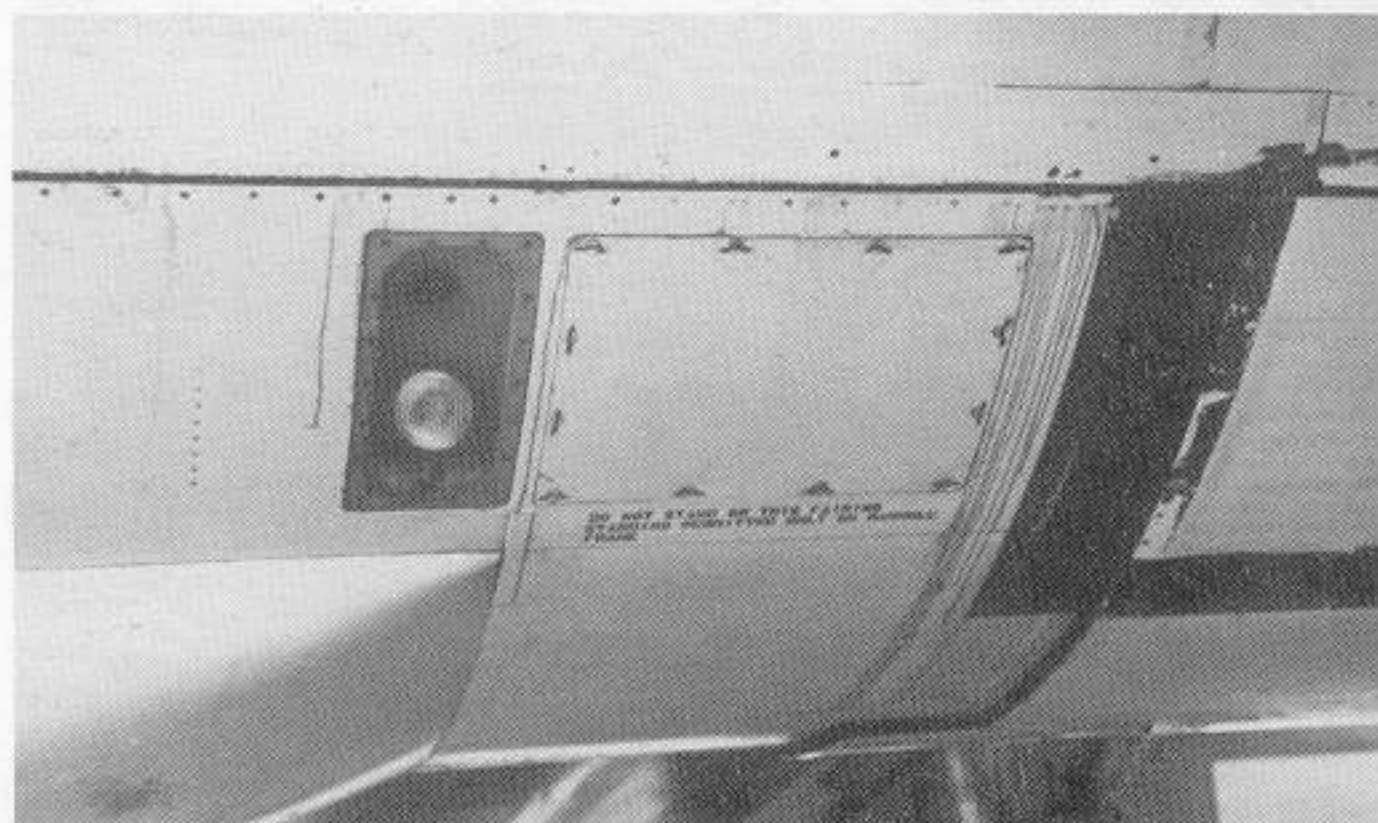
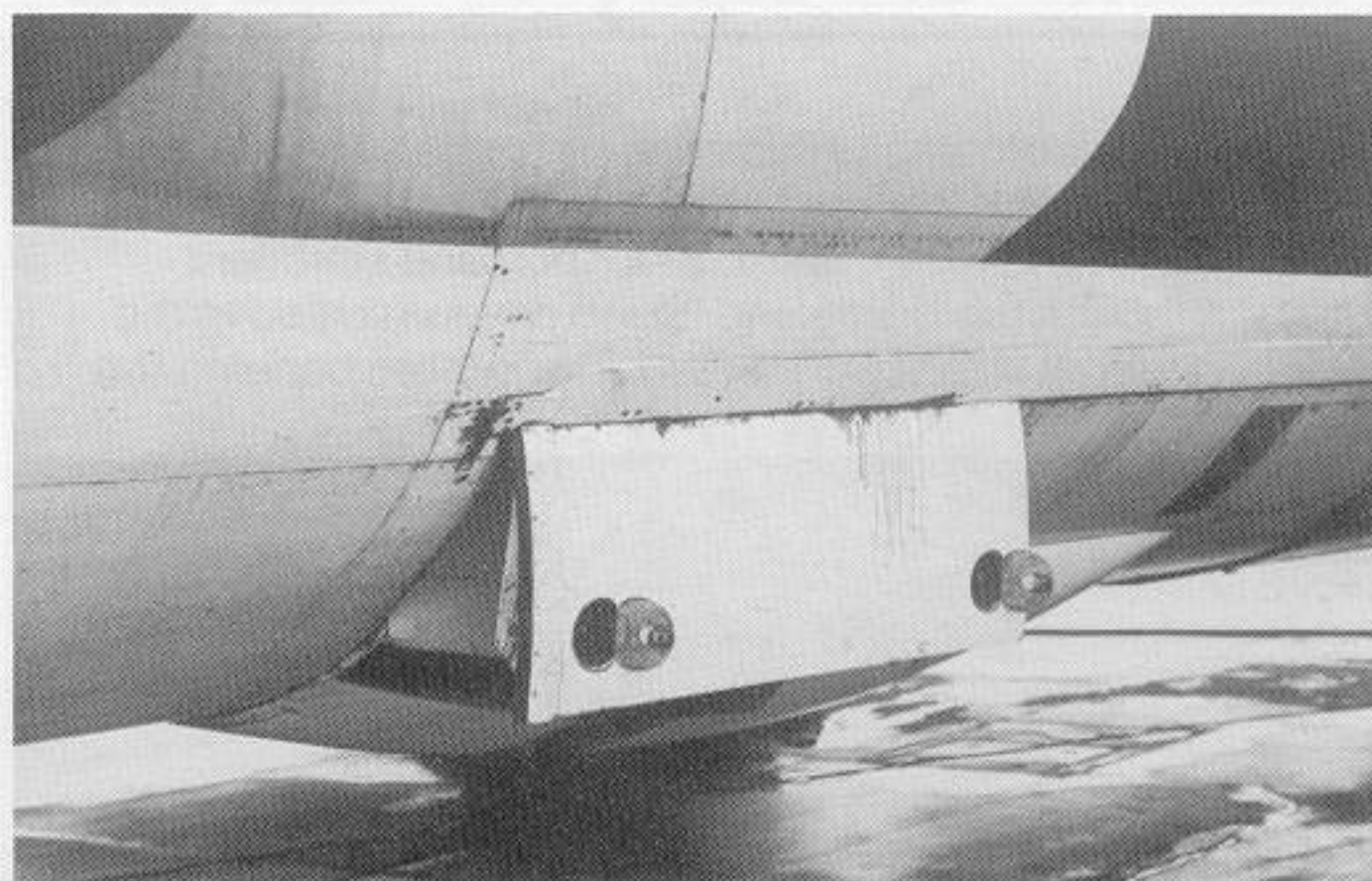
# TANKS, HDU & PODS

Below: Five photographs depicting the underwing fuel tanks as fitted to Victor K.2s. The tanks, which have a combined capacity of 26,480lb, are identical for port and starboard wings, although the mainplane fairing panels (sealed to the tanks via rubber strips) are handed. The intakes beneath the

nose of each tank are for pressurising and venting the system, and the fairing at the rear contains the fuel jettison cock and dump pipe. The servicing information is presented on buff-coloured panels with black outlines and black lettering on grey/green/white Victors.







**Top left:** The Victor's Hose Drum Unit (HDU) carriage in the retracted position. The arrangement of the black and dayglo orange striping beneath the aircraft's rear fuselage provides a reference point for receiving aircraft. The Mk 17B HDU is suspended from a retractable platform in the after end of the former bomb bay; an electric motor controls the rate at which the hose and drogue are aerodynamically deployed and is the means by which they are reeled in after use. Fuel can be pumped through the system at rates up to 4000lb (about 500gal) per minute.

**Top right:** The HDU retracted, with the starboard access door open. A photograph of a fully deployed HDU is illustrated in colour elsewhere in this book.

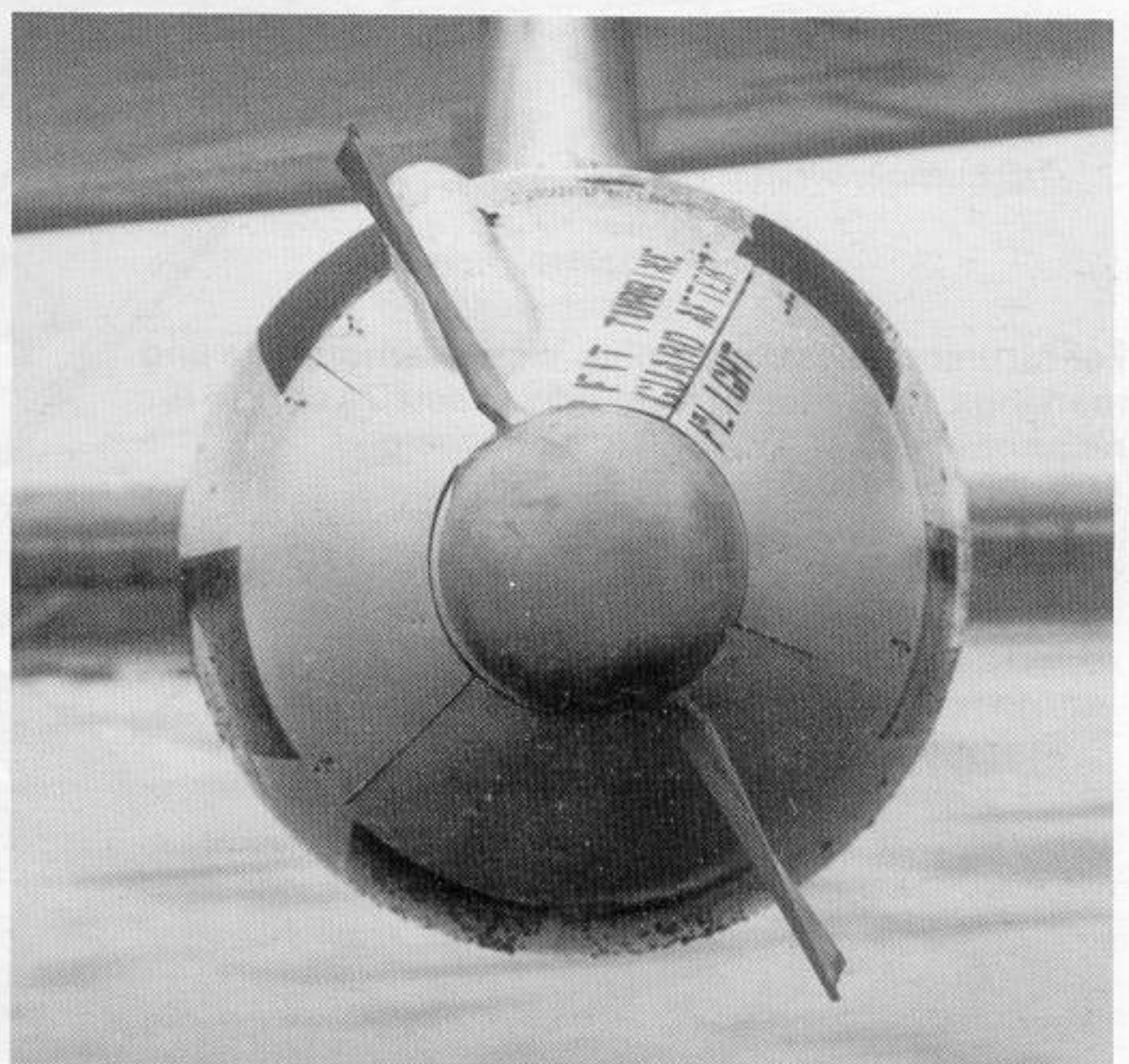
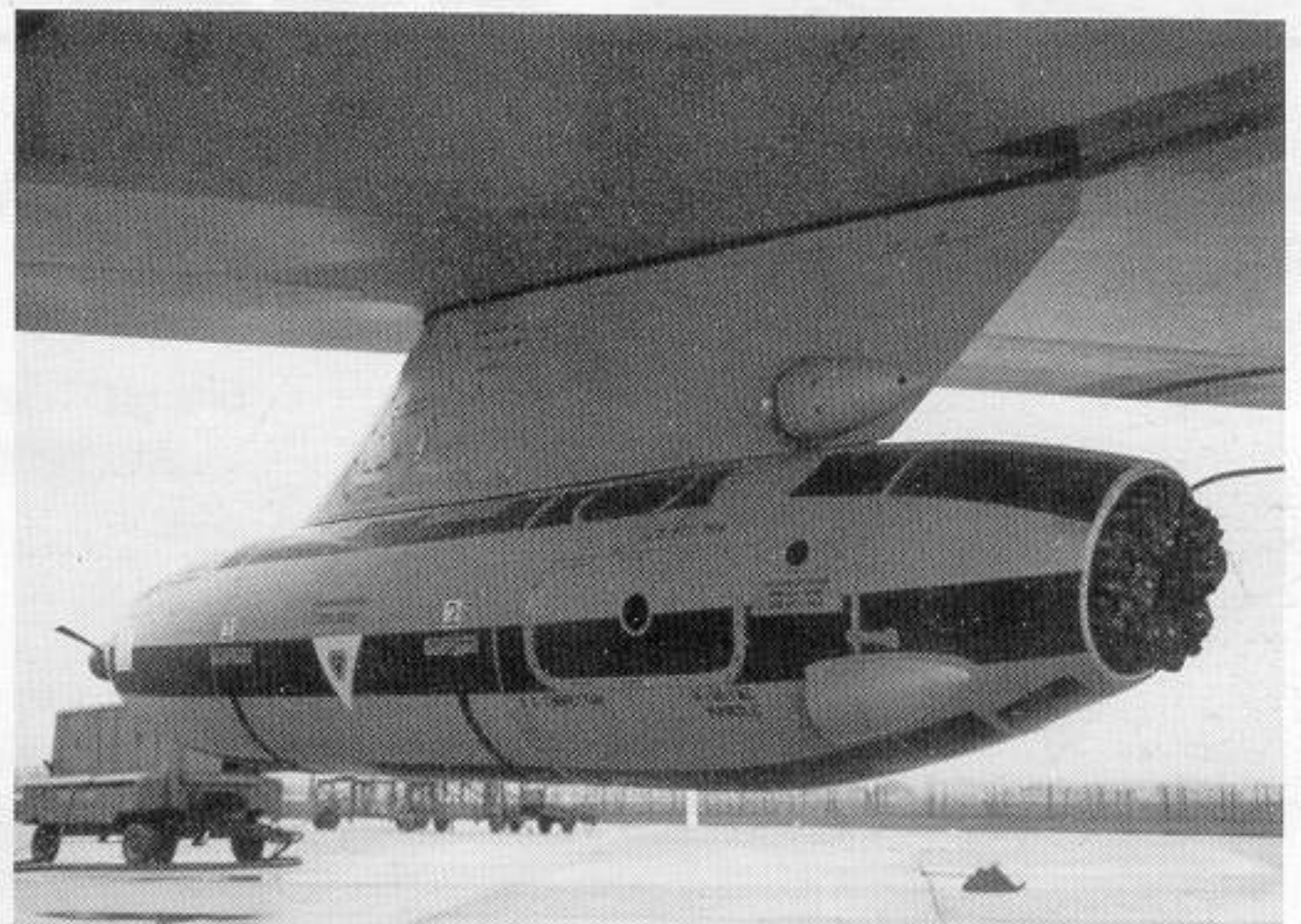
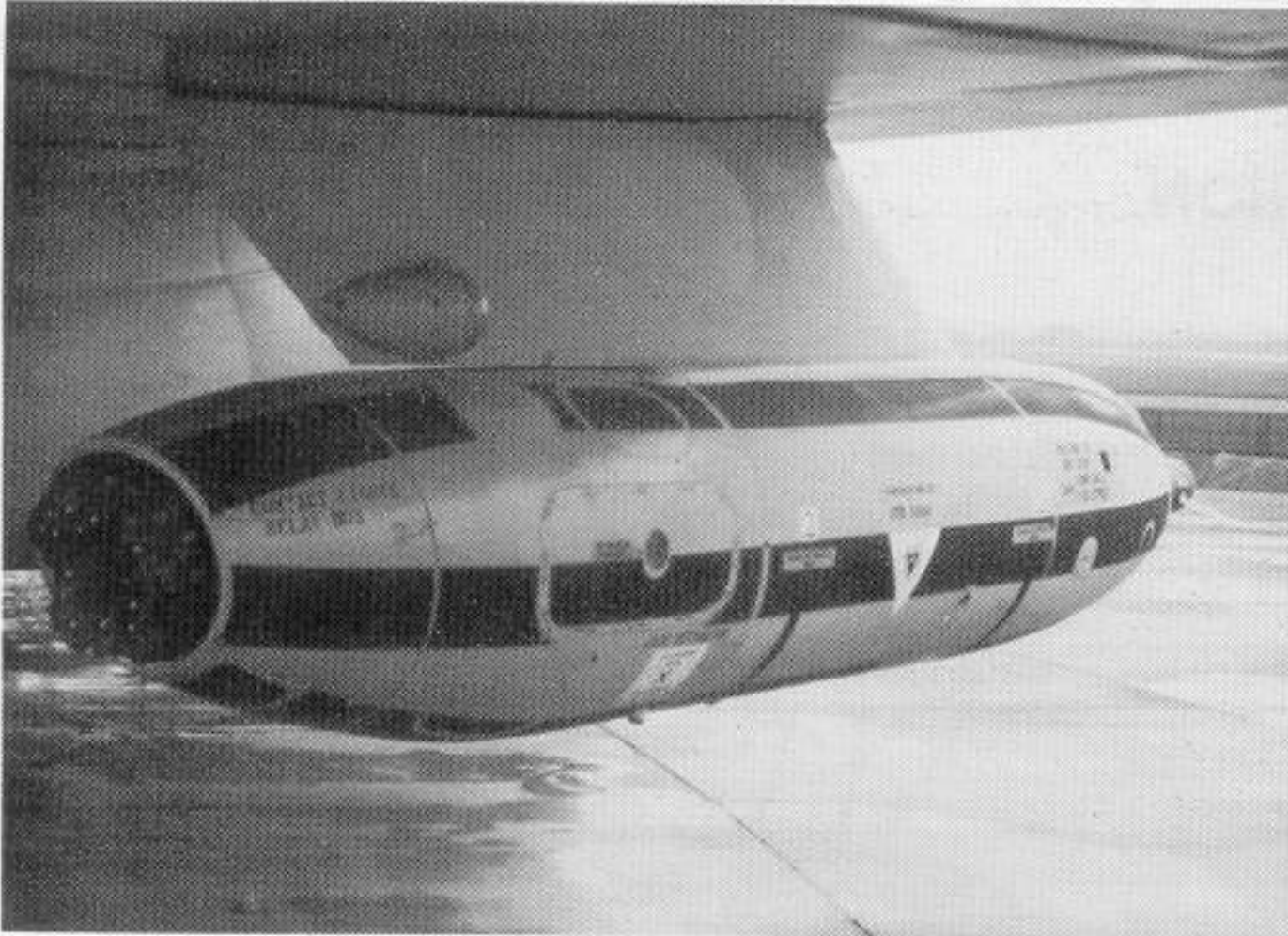
**Above left:** HDU standby light, starboard fuselage side.

**Above right:** The Victor's tail bumper (which takes the form of a wheel) is flanked by a pair of HDU spotlights which illuminate the undersurfaces of the aircraft's fuselage.

**Below:** The port wing Mk 20B refuelling pod, its pylon bearing the old No 57 Sqn insignia although the aircraft has OCU tail markings. This aircraft is combat-ready, with lights on.

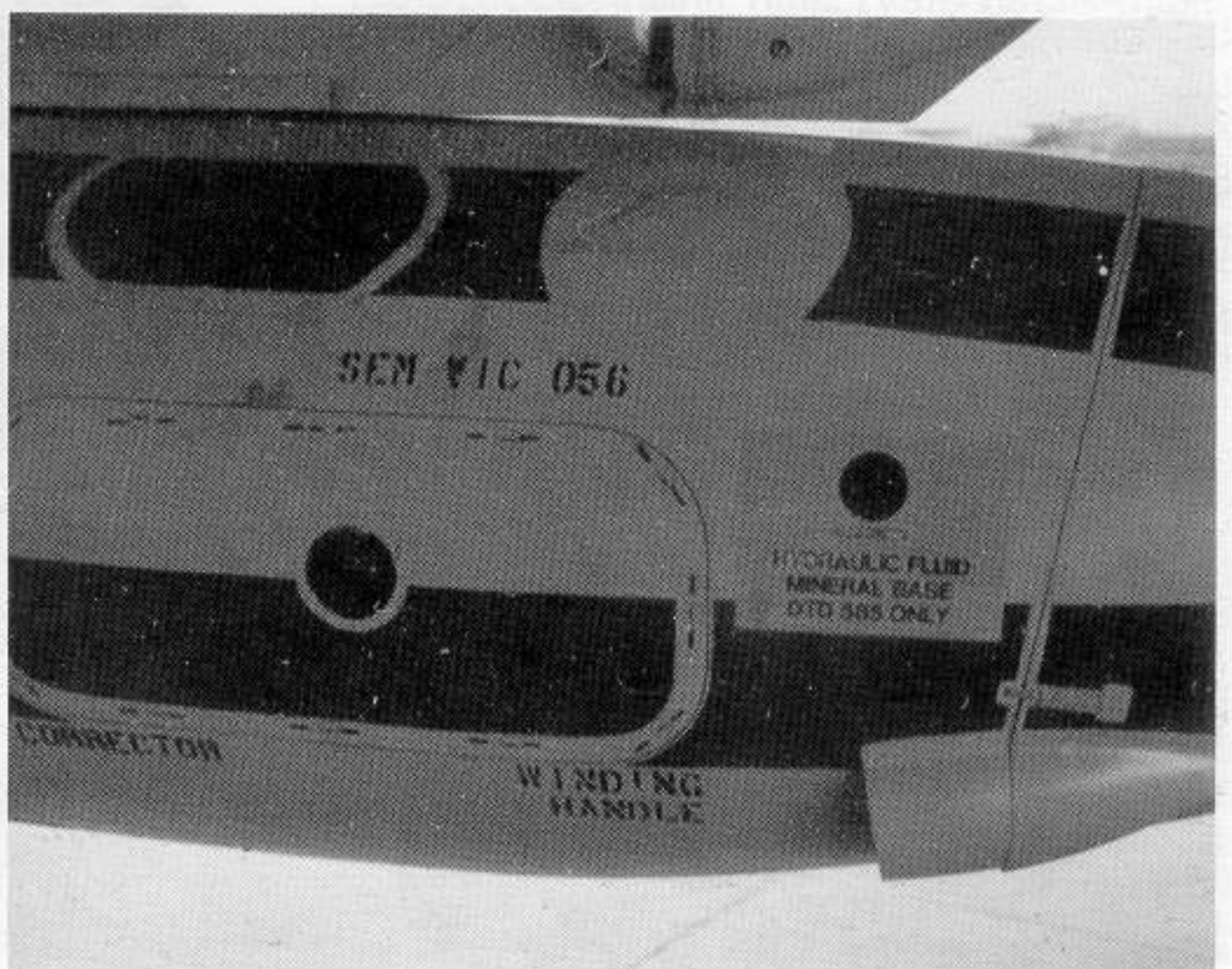
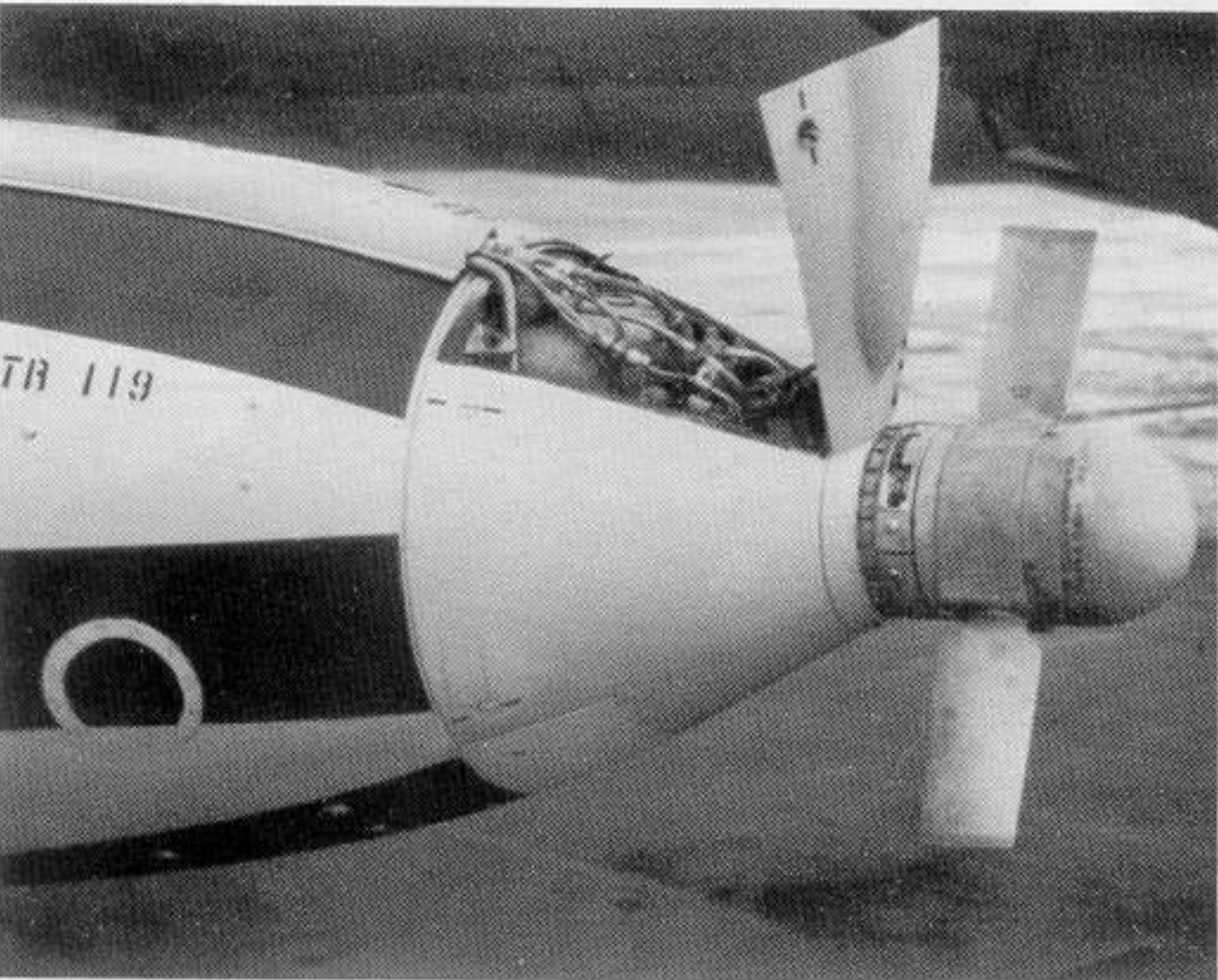






**Top left:** The starboard Mk 20B of a camouflaged Victor. The drogue basket can be seen retracted in the pod.  
**Top right:** Stand-off lights (red, amber and green) are located behind a transparent panel beneath the drogue.  
**Above left:** A drogue basket out for servicing.  
**Above right:** Frontal aspect of a Mk 20B. The pods are not handed, thus are interchangeable between port and starboard wings.

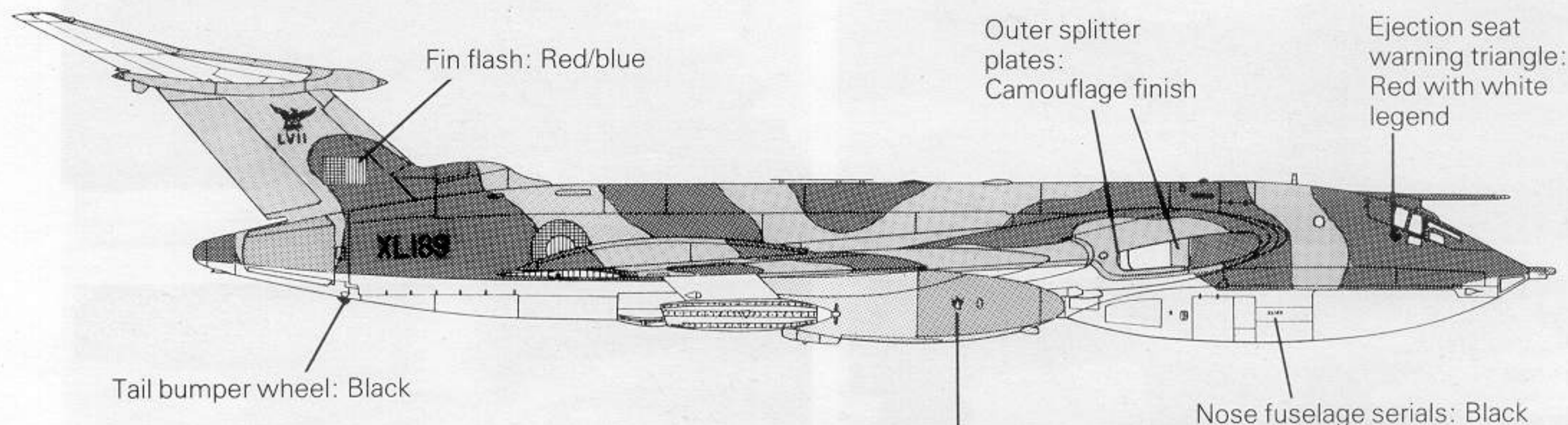
**Below left:** The hose from a Mk 20B deploys aerodynamically but requires turbine power to be retracted. Such is provided by the RAT blades on the nose. The access door over the hydraulic reservoir is open.  
**Below right:** The refuelling pods on Victors have traditionally been painted with dayglo bands, but Hemp-finished aircraft are now beginning to appear with pods painted Light Aircraft Grey overall.



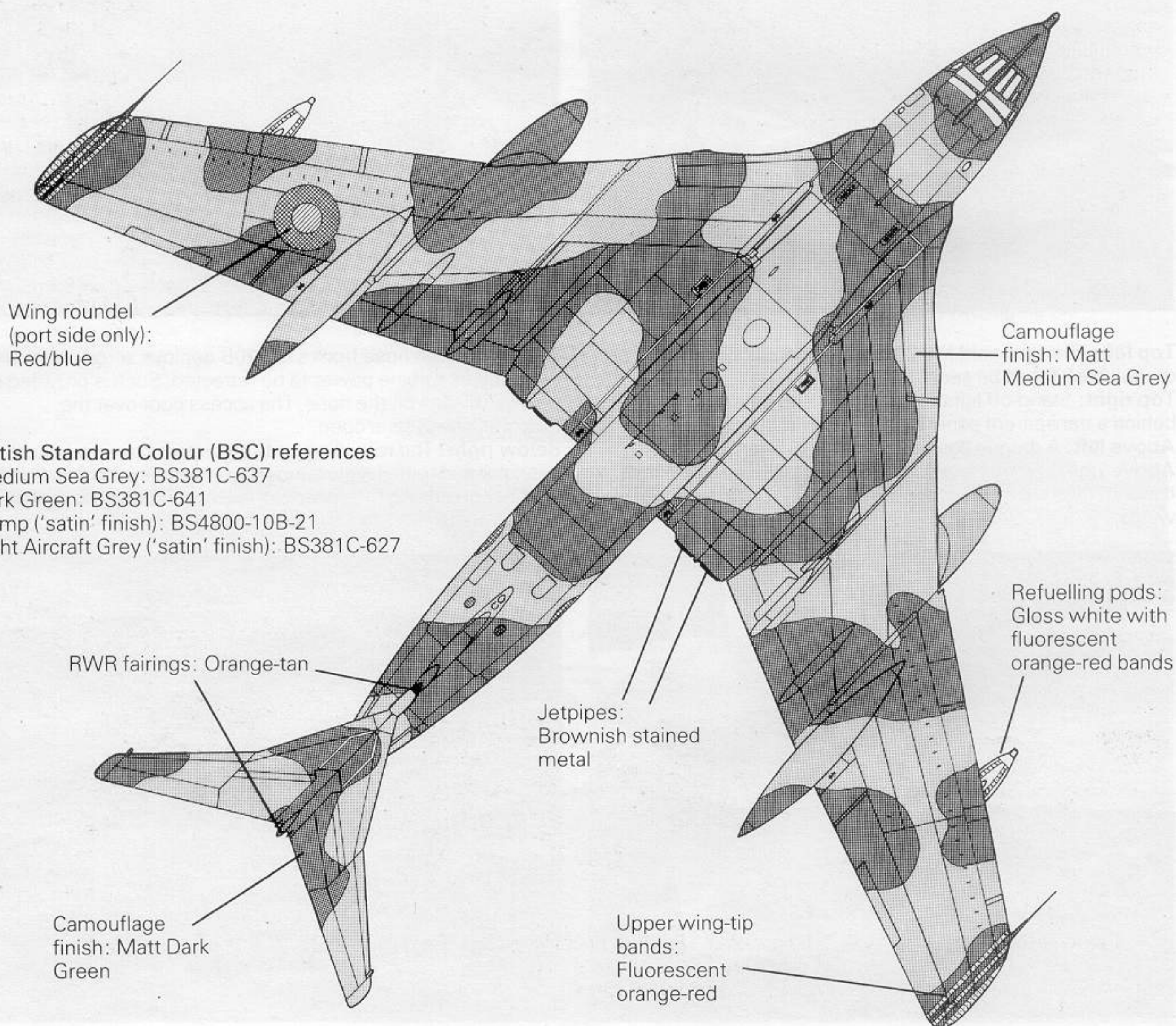


# SCALE COLOUR PLANS

**HANDLEY PAGE VICTOR K Mk 2, No 57 SQUADRON,  
RAF MARHAM, NOVEMBER 1984**



For further details concerning Victor camouflage and markings, reference to Modeldecal sets 72 and 75 is recommended



**British Standard Colour (BSC) references**  
 Medium Sea Grey: BS381C-637  
 Dark Green: BS381C-641  
 Hemp ('satin' finish): BS4800-10B-21  
 Light Aircraft Grey ('satin' finish): BS381C-627



1:192 scale

Lower wing-tip  
bands:  
Fluorescent  
orange-red

Tail box structure between flap and  
aileron: Fluorescent orange-red

Undersurfaces:  
Gloss white

Port underwing  
tank: Matt Dark  
Green upper-  
surfaces, gloss  
white under-  
surfaces

All wheel bay  
interiors: Sprayed  
aluminium

Note absence of  
underwing serials

Underfuselage  
refuelling stripes:  
Black and  
fluorescent  
orange-red

Note that  
camouflage  
'wraps around'  
wing and tailplane  
leading edges

Inflight refuelling  
attitude reference  
lines: Black,  
flanked by  
fluorescent  
orange-red bands  
except for centre  
line and across  
ailerons

Starboard underwing tank:  
Hemp uppersurfaces, Light  
Aircraft Grey undersurfaces

Main intake  
interiors,  
anti-icing  
overshoe and  
adjacent (inner)  
splitter plates:  
Gloss white

Squadron insignia: Red flames, dark  
blue phoenix and logs, dark blue  
roman numerals, all with thin white  
outline

Rescue  
equipment  
notices: Red

Blade antenna: Buff

First aid notice:  
Red/white

Undercarriage legs, wheel hubs and  
inside surfaces of undercarriage  
doors: Sprayed aluminium

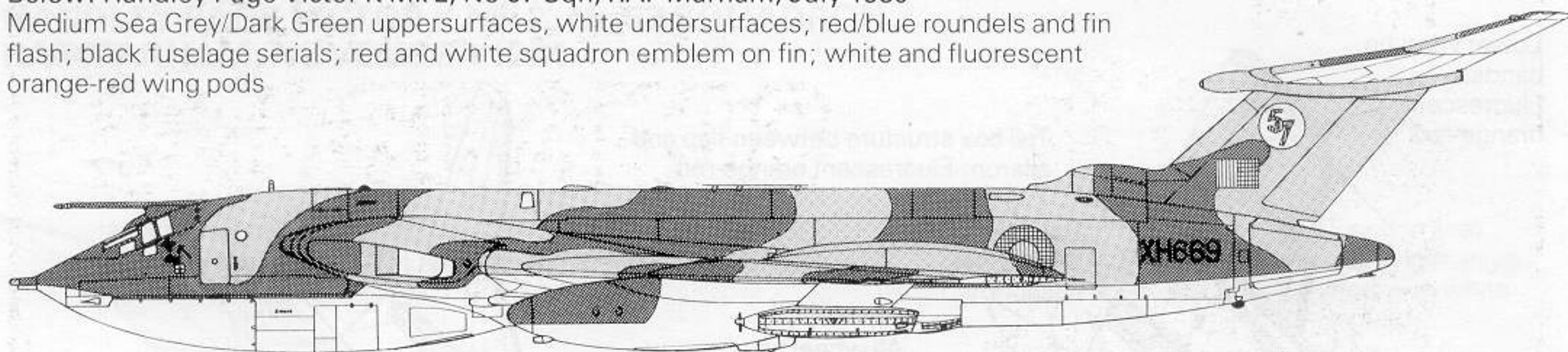
Main fuselage  
serials: Black

Interiors of  
airbrakes:  
Sprayed  
aluminium



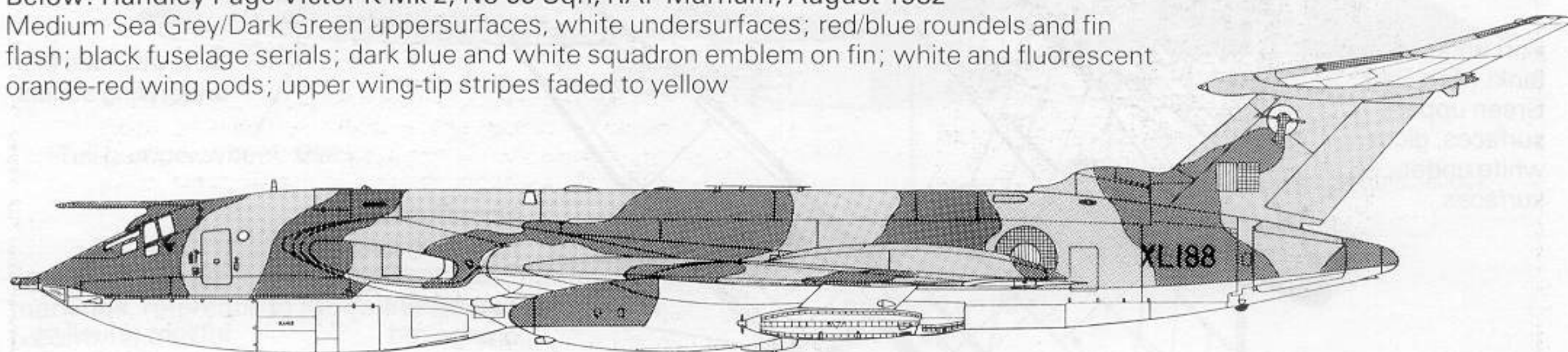
Below: Handley Page Victor K Mk 2, No 57 Sqn, RAF Marham, July 1980

Medium Sea Grey/Dark Green uppersurfaces, white undersurfaces; red/blue roundels and fin flash; black fuselage serials; red and white squadron emblem on fin; white and fluorescent orange-red wing pods



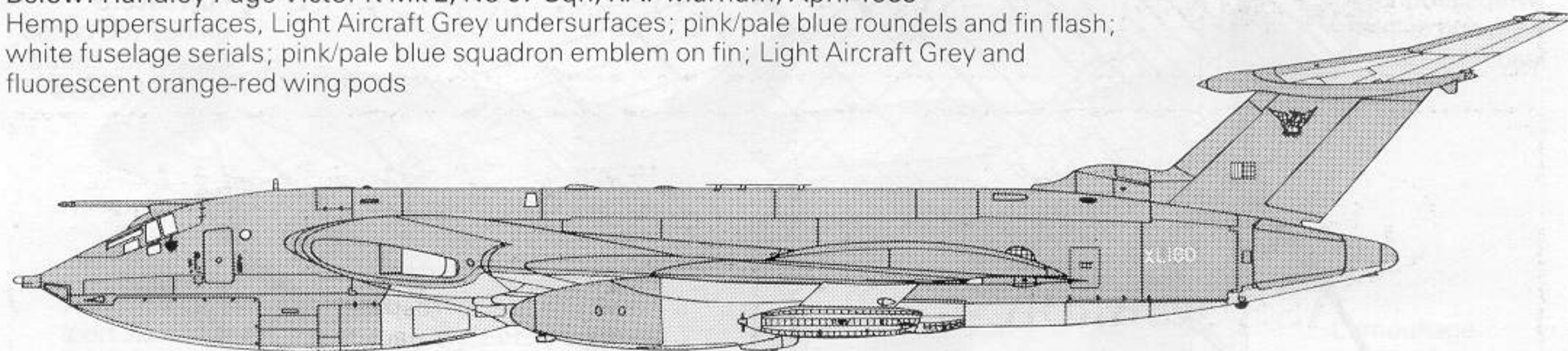
Below: Handley Page Victor K Mk 2, No 55 Sqn, RAF Marham, August 1982

Medium Sea Grey/Dark Green uppersurfaces, white undersurfaces; red/blue roundels and fin flash; black fuselage serials; dark blue and white squadron emblem on fin; white and fluorescent orange-red wing pods; upper wing-tip stripes faded to yellow



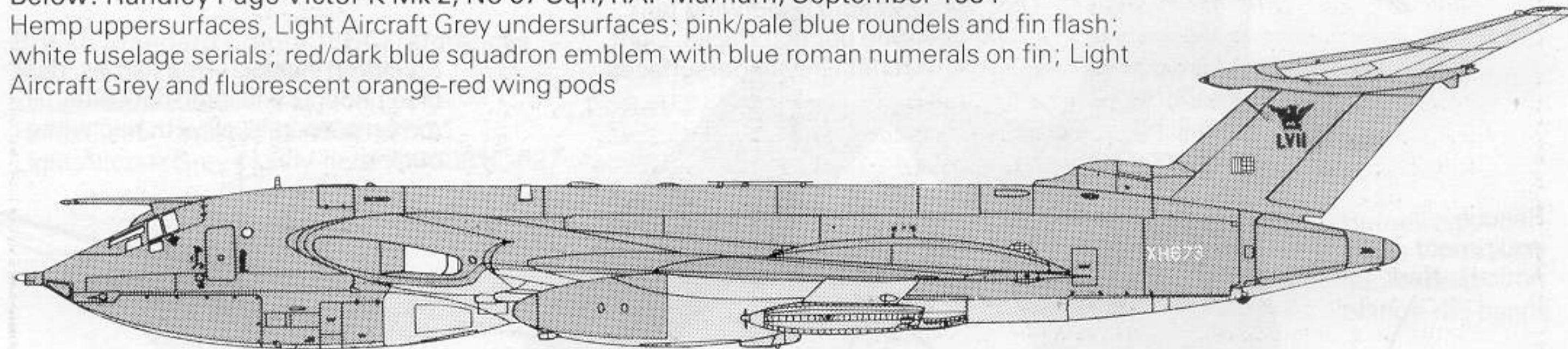
Below: Handley Page Victor K Mk 2, No 57 Sqn, RAF Marham, April 1983

Hemp uppersurfaces, Light Aircraft Grey undersurfaces; pink/pale blue roundels and fin flash; white fuselage serials; pink/pale blue squadron emblem on fin; Light Aircraft Grey and fluorescent orange-red wing pods



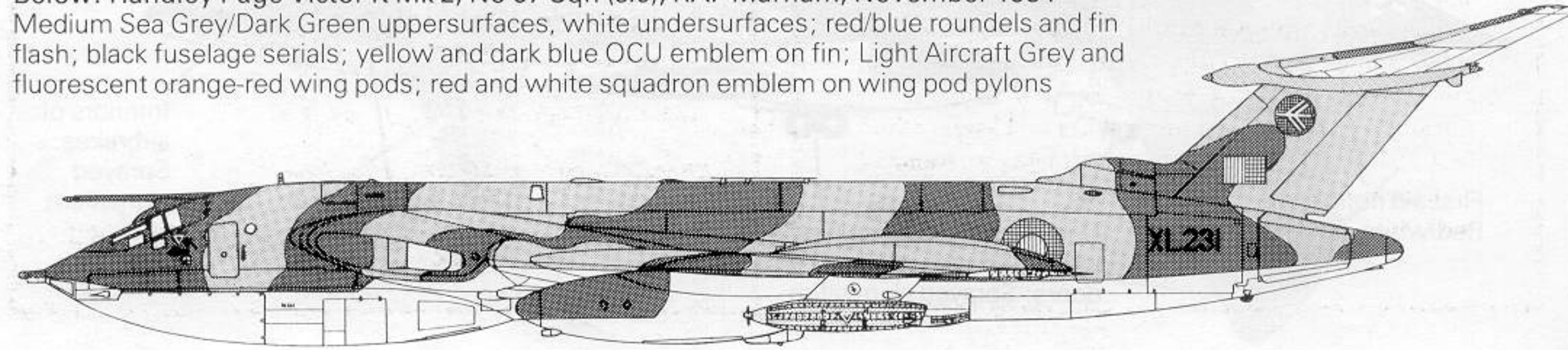
Below: Handley Page Victor K Mk 2, No 57 Sqn, RAF Marham, September 1984

Hemp uppersurfaces, Light Aircraft Grey undersurfaces; pink/pale blue roundels and fin flash; white fuselage serials; red/dark blue squadron emblem with blue roman numerals on fin; Light Aircraft Grey and fluorescent orange-red wing pods



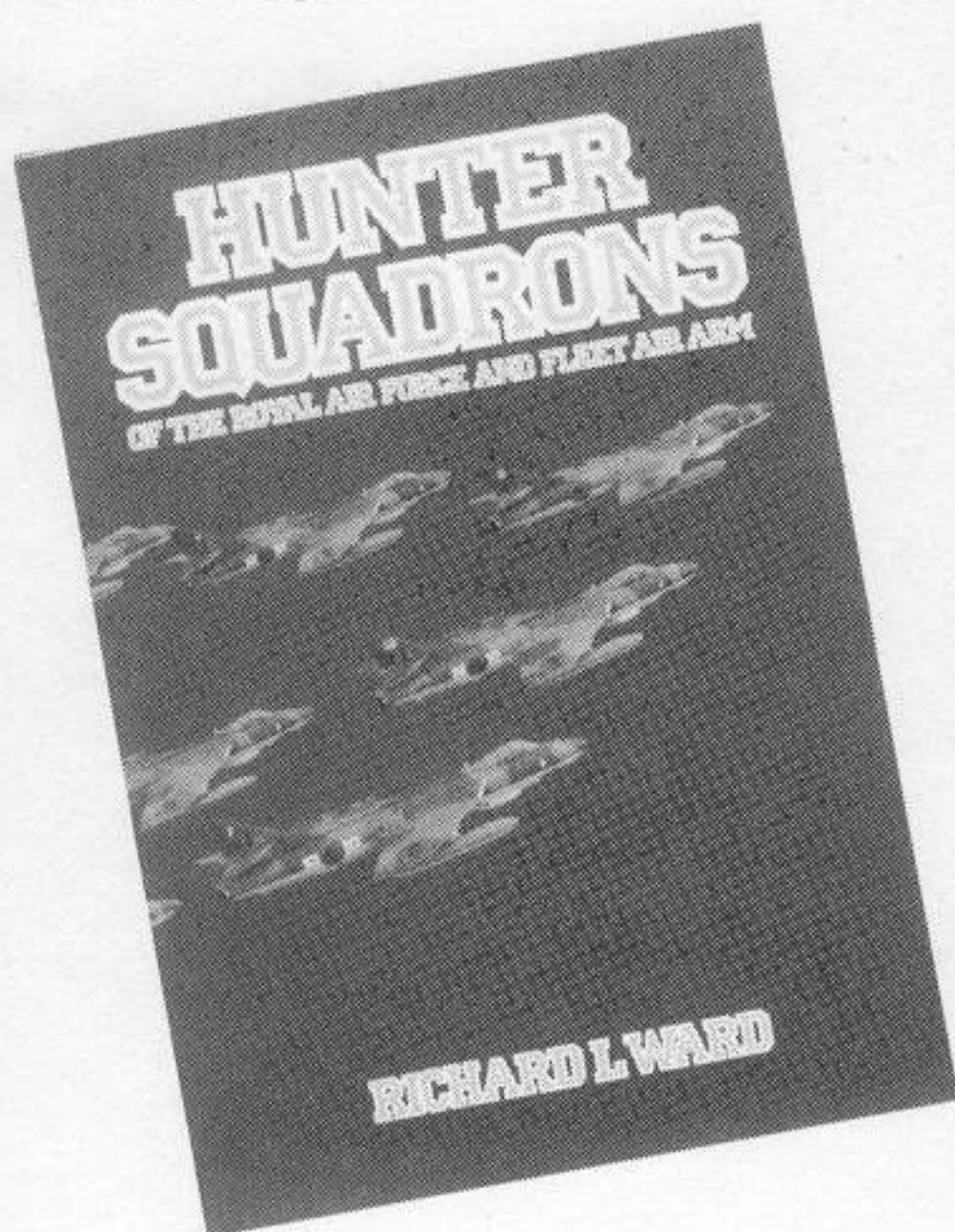
Below: Handley Page Victor K Mk 2, No 57 Sqn (sic), RAF Marham, November 1984

Medium Sea Grey/Dark Green uppersurfaces, white undersurfaces; red/blue roundels and fin flash; black fuselage serials; yellow and dark blue OCU emblem on fin; Light Aircraft Grey and fluorescent orange-red wing pods; red and white squadron emblem on wing pod pylons





**NOW!**



# HUNTER SQUADRONS

**RICHARD L WARD**

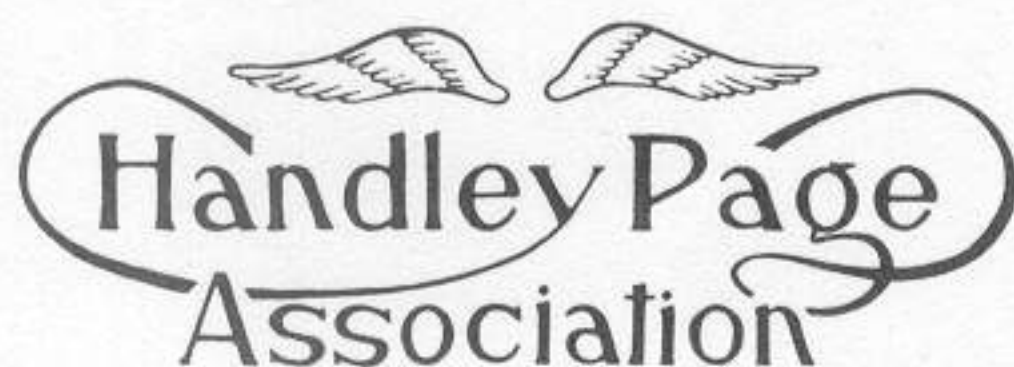
One of the best-known and most successful of all postwar combat aircraft, the Hawker Hunter equipped more than forty front-line Royal Air Force squadrons, many Royal Navy and second-line RAF squadrons and a large number of specialised units such as the Royal Aircraft Establishment and the Central Flying School.

This new, 68-page Linewrights volume traces the development of the Hunter's service career with every one of these units, recording the wide variety of roles the aircraft has played and fully describing the colour schemes and markings that have been applied, from initial service entry in the mid-1950s up to the present day.

Lavishly illustrated with scores of photographs (in black-and-white and full colour), complemented by the author's own line drawings, *Hunter Squadrons* is a unique volume that no enthusiast can afford to miss!

**Linewrights<sub>LD</sub>**

118 HIGH STREET, CHIPPING ONGAR, ESSEX CM5 9EB



The Handley Page Association was formed in 1979, some ten years after the Handley Page Companies went into liquidation, to keep alive the memories of the Companies, their founder and their aircraft. It aims to bring together all those with an interest in the Companies and in their achievements. Membership currently stands at some 400, with members in many countries.

Newsletters are published regularly, giving news of people, aircraft and events related to Handley Page, and activities include reunions, lectures, film shows and participation in the display of Handley Page aircraft; a growing function is the supply of information and audio-visual material relating to the Companies.

Membership is open to all for a very modest annual subscription, and details can be obtained from the Hon Membership Secretary, Handley Page Association, 77 Bowershott, Letchworth, Hertfordshire SG6 2EU, England. Please enclose a stamped addressed envelope (or international reply coupon) with any enquiry.

## GOT THEM ALL?

### Aeroguides

1. **Hawk:** British Aerospace Hawk T Mk 1
2. **Jaguar:** SEPECAT Jaguar GR Mk 1
3. **Sea Harrier:** BAe Sea Harrier FRS Mk 1
4. **Tornado:** Panavia Tornado GR Mk 1
5. **Buccaneer:** HS Buccaneer S Mk 2
6. **Vulcan:** Avro Vulcan B Mk 2/Mk 2K
7. **Canberra:** EE Canberra B Mk 2/T Mk 4
8. **Lightning:** BAC Lightning F Mk 3/Mk 6
9. **Hunter:** Hawker Hunter F Mk 6/T Mk 7\*
10. **Sea King:** Westland Sea King HAR Mk 3\*
11. **Victor:** Handley Page Victor K Mk 2\*
12. **Harrier:** Hawker Siddeley Harrier GR Mk 3\*†
13. **Phantom:** McDonnell Douglas Phantom FG Mk 1/FG Mk 2\*†

### Aeroguide Classics

1. **Spitfire:** Supermarine Spitfire Mk V
2. **Me 109:** Messerschmitt Bf 109E†

### Aeroguide Specials

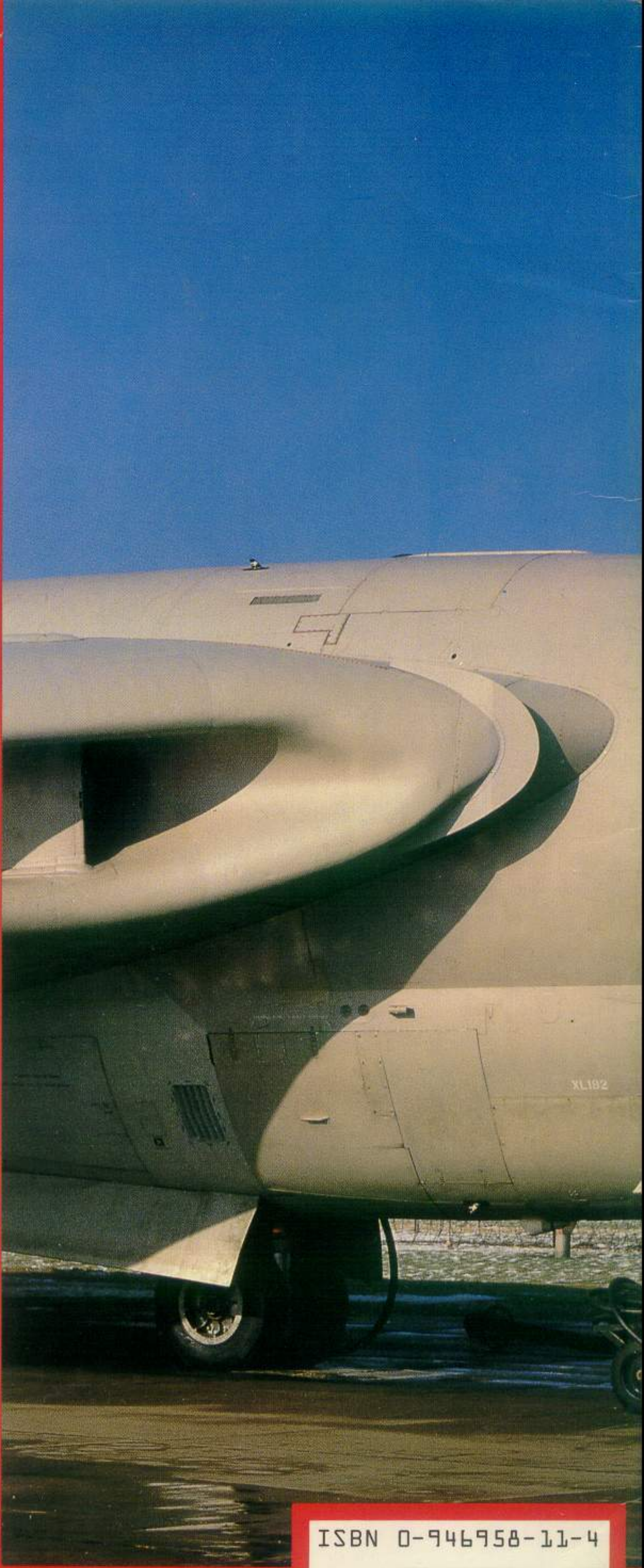
1. **Grumman X-29\***†

\*With four pages of colour

†In preparation

**GREAT AIRCRAFT  
IN GREAT DETAIL**





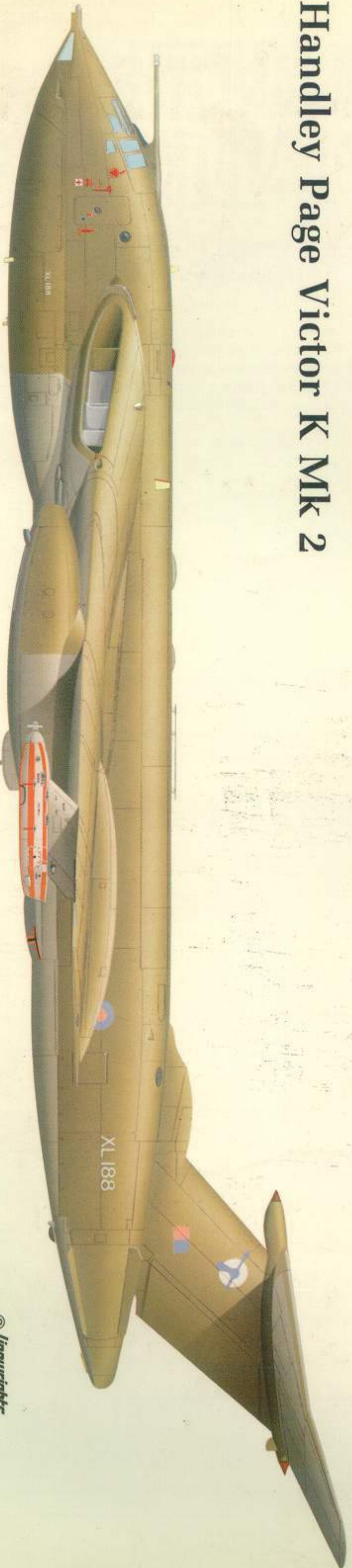
ISBN 0-946958-11-4



9 780946 958115

**Linewrights**<sub>LTD</sub>

## Handley Page Victor K Mk 2



© Linewrights<sub>LTD</sub>